Universidad Europea de Madrid
School of Architecture

Architecture Program Report for 2014 NAAB Visit 3 for the 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. (1)

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

Year of Previous Visit: [November 2013]
Current Term of Accreditation: [one year term]

Submitted to: The National Architectural Accrediting Board
Date: June 2013

NOTES:

1. This program coexists with Bachelor´s degree in Architecture (freshman admission + 300 credits) professional degree, which is the previous version of the Bachelor´s Degree in Fundamentals of Architecture

**Note: two sections with sensitive information deleted. The full self-report is available and freely accessible at the School of Architecture.*

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I.1.1. History Mission

Institution description and founding principles

Universidad Europea de Madrid comprises 7 Schools (School of Arts and Communication, School of Social Sciences, School of Health Sciences, School of Biomedical Sciences, School of Sports Science, School of Engineering and **School of Architecture**) offers a total of 149 officially accredited degree programs this 2013-2014 academic year, with 47 Bachelor's Degrees, 86 Master's Degrees and 16 PhD programs, all of which are fully compliant with the European Higher Education Area (EHEA) UEM currently has 13,498 enrolled students and a staff comprising 1,113 faculty members, 470 non-academic staff, and 1,357 external collaborators.

Universidad Europea de Madrid's educational philosophy is based on four founding principles:

Innovation: It is the first university in Spain to design Double Degrees in different academic areas, the second university in Spain to design European Bachelor's Degrees within the framework of the Bologna process (2008), the first system to blend online and face-to-face learning (*Universidad Personal*), the first institution in Spain with a trimestral calendar, and the first institution in Spain to offer schedules compatible with working hours for professionals.

International perspective: By increasing the number of international students and professors each year (incoming and outgoing) and the number of international programs taught in English, among others.

Quality, in various areas: academic quality, management processes, accreditations (Institutional as well as in specific areas, on a national and international scale).

Professional profile/efficiency: A growing tendency (new campuses, new degree programs offered, increasing the number of students and staff, and professional organization/management).

History of the Institution

Universidad Europea de Madrid was officially established as a Private University in 1995 by Law 24/1995, dated July 17th.

Universidad Europea de Madrid started as Centro Europeo de Estudios Superiores (CEES) *[European Center for Higher Education]*, a university college affiliated to the Universidad Complutense de Madrid under Royal Decree 1725/1991, dated November 22nd, which approved the agreement between the affiliation of Colegio Universitario de la Fundación Cultura y Libertad *[Culture and Freedom Foundation University College]* and Universidad Complutense de Madrid. For a little over 10 years, CEES represented the fundamental basis of our University today, even though the university education offered was limited to a small number of Bachelor's Degree Programs (Law, Economics, Business Studies and Communication Sciences).

In 1998 it came under the ownership of the Sylvan Group, currently known as Laureate International Universities (as of 2004), which has set up an International Network of more than 50 Institutions, with more than 600,000 students and 45,000 employees on 100 Campuses spanning 21 countries located in Africa, Asia, Europe, the Americas and Australia.

As a member of Laureate International Universities, UEM benefits from a distinct international perspective that prepares our students to be global citizens in a clearly international job market, thanks to professors and students of more than 60 different nationalities, bilingual degree programs, guaranteed studies abroad, and dual degree programs at internationally renowned universities.

In 2008, in keeping with its strategic principle of Innovation, Universidad Europea de Madrid made a strong commitment to complying with the new European Higher Education Area (Bologna Declaration). This renovation process gave way to pioneering the design and offer of a great many new European degrees in Spain, becoming one of the first Universities in Spain to offer EHEA-compliant degrees and the second University in Spain as far as number of new degrees offered.

The **School of Architecture** at Universidad Europea de Madrid was officially established as a Private School of Architecture in 1996 under the Law (24/1995 dated July 17th). Its original name was *Escuela Superior de Arte y Arquitectura* (Higher School of Art and Architecture).

In 1996 there were only two Schools of Architecture in Madrid: the *Escuela Técnica Superior de Arquitectura de Madrid* (ETSAM, public University) and CEU School of Architecture (Private University). There was a social demand for a greater variety of Architectural studies and methods to teach/learn Architecture in such a large city. Responding to this demand, the School of Architecture at Universidad Europea de Madrid was founded by its first Dean, Dr. Angel Luis Fernández, who enrolled some professors from ETSAM and professionals from the Madrid area in the framework of Universidad Europea de Madrid. The School has been led by four Deans to date: Dr. Angel Luis Fernandez (1996-2002), Dr. Fernando Espuelas (2002-2006), Dr. Juan Carlos García-Perrote (2006-2010), and Dr. Miguel Gómez Navarro (2010 -- present)

The School of Architecture began offering an Associate's Degree (pre-Bologna system) in Architecture and an Associate's Degree in Fine Arts; the combination of both academic areas gave the name Higher School of **Art** and **Architecture**. The relationship between Art and Architecture runs so deep that a Double Degree in Art and Architecture was created in 1998, combining both curriculums according to a credit recognition matrix. In 2000 a new area was included, *Arquitectura Técnica* (Technical Architecture, which is comparable to Building Engineering). So since 2000, the School has had the three academic areas: Technical Architecture, Art, and Architecture.

Since its foundation, the School has grown considerably. Students/professors of undergraduate programs of Architecture: 423 students/40 professors (2000), 761 students/68 professors (2004), 1324 students/114 professors (2008), and 1262 students/89 professors (2012). Its professional connections and influence in Madrid, and in Spanish society in general, have continually increased since then. In addition, the international profile of the School has grown thanks to international incoming students, incoming guest professors, outgoing Spanish students and outgoing professors.

In 2008 the degrees were adapted to the new European Framework proposed by the Bologna Declaration. Architecture was established as a Bachelor´s Degree in Architecture, the Associate's Degree in Fine Arts was established as a Bachelor´s Degree in Art, and the Technical Architecture Degree was established as a Bachelor´s Degree in Building Engineering. In addition, a new area was added thanks to the inclusion of a new degree: the Bachelor´s Degree in Design (with specialization branches in Graphic Design, Product Design, Interior Design and Fashion Design).

In 2009 the academic areas of Art and Design split from the School and joined the School of Communication at Universidad Europea de Madrid. Therefore, the School of Architecture kept exclusively the academic areas of Architecture and Building Engineering. This new scenario changed the name of the School to *Escuela de Arquitectura* -School of Architecture-, as just *Architecture* includes the Architectural design part of Architecture and the technical-management part of Building Engineering. In any case, the School did not lose its connections with art and design and kept the organization and leadership of the Double Degrees in Architecture and Art and Architecture and Design.

In 2014 the School of Architecture and the School of Engineering are undergoing a process of integration and will become a single School of Architecture and Engineering. This integration of Schools will provide opportunities for multidisciplinary collaborations in sciences and technology between students and faculty from architecture and engineering.

Mission of the Institution

The **mission** of **Universidad Europea de Madrid** is to provide a **holistic university education** that fully prepares students to become leaders and professionals while allowing them to achieve personal development.

As a result, our aim is to make Universidad Europea de Madrid a benchmark of quality in higher education in Spain, at the **forefront of intellectual and technical development**; generating and transmitting knowledge through **applied research**, contributing to **social progress**, and training **efficient leaders and professionals** capable of responding to the needs of the new **global society.**

The Bologna Process is implemented at UEM using an educational model that is consistent with the principles promoted by the EHEA. Unlike traditional university models, our educational model incorporates elements linked to the development of skills, **entrepreneurship,** and **ethical values**, going beyond a simple focus on learning strictly linked to the specific knowledge of each area.

To guarantee this **mission,** the educational model at UEM is built on four strategic principles:

- **Student-centered learning:** Learning vs. teaching; knowledge, skills, values, support services, facilities, active research, etc.
- **International perspective:** Bilingual programs, international studies abroad, international internships, dual degree programs, student and professor mobility, a global nature, etc.
- **Professional connections***:* Panels of experts, training for professional performance, 50% of professors are actively working professionals, clinics, internships, applied R&D+I, etc.
- **Quality:** Adaptation to needs, processes, benchmarking, perception and performance measures, continuous improvement, certifications-accreditations, etc.

Universidad Europea de Madrid promotes **research activity at the University** as well as connections to the business world, with the aim of giving maximum visibility to research results.

The research carried out at UEM is organized on the basis of the activity performed by the professors at the seven Schools, both in specific lines of research and in cross-disciplinary lines of research. Research areas have been prioritized by the University according to its Strategic Plan and are managed by the Centers of Excellence for Research.

The mission of the **School of Architecture** at Universidad Europea de Madrid is to train first-class professionals perfectly equipped with the technical and intellectual ability to meet the challenges and demands within the fields of Architecture and Building Engineering. In today's highly competitive world and ever-more demanding society, we must prepare ourselves with the best available educational facilities and tools. This is in itself a sufficiently ambitious objective for any higher education institution, but not for us: the School of Architecture goes beyond this. To achieve this objective, the School adopts UEM's four Mission items:

- **Student-centered learning**: thanks to facilities and **learning areas that make use of the latest technology, small groups, academic advising**, an exemplary library and a beautiful natural environment ideally suited to educational training and study. From its beginnings, this School has been at the forefront in setting up **innovative methodologies** for developing skills and values, where the student is the focal point of learning based on **personalized learning** from the time they become undergraduates until they graduate, and further on through their graduate specialization and research. The support services (academic coordination, advisors and ombudsperson) guarantee the students guidance and personalized follow-up. In addition, the School promotes its students through exhibitions and publishing of their projects, as well as by way of blogs, in books, or on the UEM website.

- **Professional connections:** The School of Architecture wishes to anticipate university training to prepare students to access all the possible professional walks of life, from small, flexible and advanced offices to large companies and multi-disciplinary consultancies. The direct contact with the field is what allows the School to be ever attentive, including the most prestigious, brilliant and experienced professionals among the faculty. In addition, the School curricula include **Internships** as mandatory subjects so that students gain knowledge of working in the real world prior to finishing their studies. The contribution of professionals in the School's degree program design is achieved thanks to the participation of **panels of experts**. The advice of the major **Architectural Associations** (COAM-Madrid Architects Association, and CSAE-Spanish Architectural Association) are particularly relevant in the design of the curricular programs, in the same way as the School's advice is relevant to the major Architecture professionals and Associations.

- **International perspective:** In order to offer an education that opens doors to the maximum number of professional possibilities, our focus leads us towards a definite international perspective. The continuous visits by architects and engineers from other countries to give conferences and teach courses, the **exchange of students and professors**, both in Europe and throughout the extensive network of Laureate international Universities spanning the world, is proof of this international focus. This is a vocation that becomes a reality with the possibility of receiving integrated **training and learning in English** in architectural studies (Bachelor's Degree in Architecture 100% in English, *Tricontinental* Master's Degree in Advanced Architectural Projects and the International Master's Degree in Integrated Architectural Projects) or offering bilingual options in all the degree programs compliant with the European Higher Education Area. The offer of **Dual Degrees** between our School and other International Schools (such as NSAD San Diego, California, among others) are also an international option for students to study abroad or receive incoming students.

- **Quality:** The School of Architecture is in line with the University as far as their continuous improvement processes, including adapting to needs and promoting a culture of quality. The academic and managerial processes and procedures, led by the Academic Management, are more efficient and transparent each year, for both faculty and students. In addition, it is essential to constantly measure the results and perceptions through performance objectives, striving for continuous improvement. Spanish certifications-accreditations (ANECA, ACAP-Fundación Madri+d) and international accreditations are also major School goals for guaranteeing the quality of the programs offered.

Apart from the four UEM Mission Items, the School of Architecture adds a fifth fundamental and specific value area in Architecture:

- **Integration of disciplines**. Architecture - in the widest sense of the word - is not simply a technical discipline that is applied in the mere pragmatic sense, but a powerful instrument that

serves to understand and make sense of our physical surroundings. We live in a world enormously affected by human influence, whereby, almost seamlessly, nature and culture are intertwined. As such, it is necessary to guarantee maximum efficiency and sensitivity when contributing to our physical resources. The guarantees that society is beginning to demand from those who contribute to physical resources can only be achieved by means of a deep understanding of **phenomena of all types; natural, historical, social and productive**, which impact upon this resource. At the same time, it is essential to remain aware of the responsibility that we assume for future generations. The very essence of architecture brings together wide-ranging aspects of human knowledge. Its principal distinguishing feature is precisely its capacity to manage complexity, as this is a professional field dedicated to the **multidisciplinary**, to the harmonization of knowledge, and to the communication of interests by integrating different disciplines. For this reason, the UEM School of Architecture offers Double Degrees in Architecture and Art, and Architecture and Design, which reinforce our support for contemporary creation. That is why we are setting up an innovative experience that proposes project-based learning by means of **integrated workshops** that allow students to become adept in the communication of knowledge of a diverse nature within the same practical subject. The School, therefore, supports the **blending of architecture with philosophy, music, engineering, economy or art**. In the same way, the certainty of this expanded function of architecture has led us to prioritize **research** as being inescapably linked to teaching.

History of the program

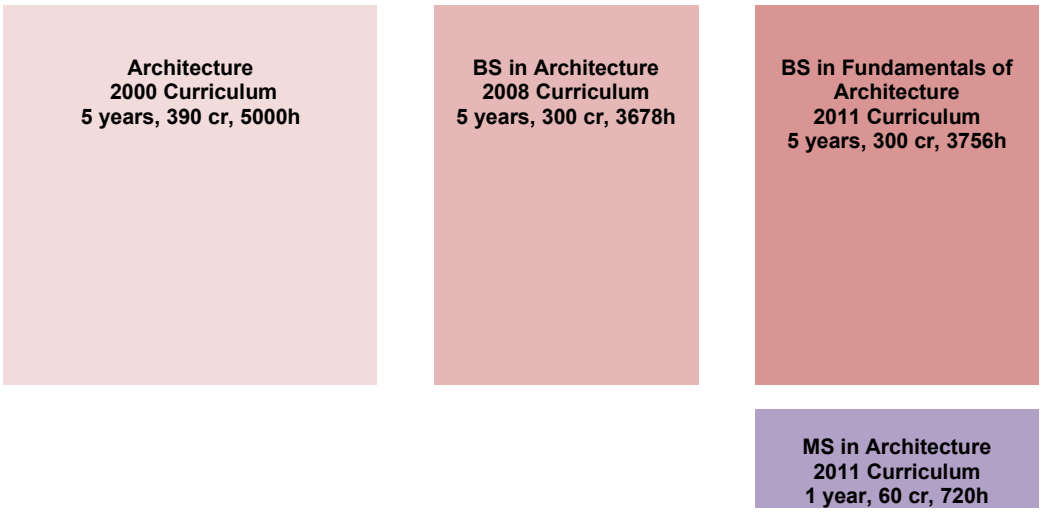
The School of Architecture at Universidad Europea de Madrid (UEM) offers three curricula for Architecture, simultaneously:

1-Architecture, 2000 curricular program (*Arquitectura, plan* 2000). 5 years. 5034 hours. Degree: Architect (100% professional qualification as an Architect: design+technology)

2-Bachelor's Degree in Architecture, 2008 curricular program (*Grado en Arquitectura, plan* 2008). 5 years, 3678 hours. Degree: Bachelor of Architecture (100% professional qualification as an Architect: design+technology)

3-Bachelor's Degree in Fundamentals of Architecture plus Master's Degree in Architecture, 2011 curricular program (*Grado en Fundamentos de Arquitectura y Máster en Arquitectura*, *plan* 2011). 5+1 years, 3756+720: 4476 hours. Degree: Bachelor of Fundamentals of Architecture (partial qualification as an Architect: design).

This bachelor's degree is a prerequisite to course the Master's Degree in Architecture, which qualifies the student to practice as a certified Architect anywhere in Europe (design+technology).



1-Architecture, 2000 curricular program (*Arquitectura, plan 2000*). This curriculum is included in the non-European compliant degrees and is pre-EHEA.

Some hands-on courses (projects, urbanism), but others very theoretical (fundamental courses such as history and mathematics, structures, construction, etc.) including a large amount of lectures and exams.

Once the Bologna Declaration was in place in 2008, UEM changed the curriculum of Architecture in order to apply for compliance within the new European regulations for degrees, and since then the Architecture curriculum (2000) began a process of extinction, so as to slowly terminate the degree program. Within two years, this curriculum will no longer exist. Therefore, its application in equivalency processes does not proceed. The credit unit is the old Spanish credit, which corresponds to 12 hours in class.

2-Bachelor´s Degree in Architecture, 2008 curricular program (*Grado en Arquitectura, plan 2008*). This curriculum is the consequence of compliance with the Bologna Process and the new European academic framework, which has been enforced by UEM since 2008. It was officially approved by ANECA (Spanish National Agency for Quality Assurance and Accreditation) on 1-07-2008, according to the official Spanish law RD 1393/2007, article 25**.** The credit unit is the ECTS (European Credit Transfer System) which corresponds to 25 hours of work per credit. This ECTS system must include: in class hours as well as autonomous work, projects and assignments. UEM made the decision that 1 ECTS should correspond to 12 hours in class and 13 autonomous hours of work. Therefore, the unit is: **1 ECTS=12 class hours.**

All courses will have a similar number of ECTS, will be on a semester or trimester schedule, and new methodologies will be applied in all courses (the Case Study Method, project-based learning, teamwork, research, etc.). Meanwhile, lectures and exams will be assigned fewer credit hours than the previous curriculum, as hands-on assignments become much more relevant in all courses.

There is also a change in the title; Bachelor's Degree (=*Grado*) will be added, according to the European standard. Holding a Bachelor's Degree is sufficient to acquire 100% professional certification as an architect. Therefore, a Master's Degree is no longer required to practice as an Architect. In 2011 the Bachelor's Degree in Architecture curriculum (2008) began to be phased out, so as to gradually terminate

the degree program. Within five years, this curriculum will no longer exist. The reasons for this termination are explained in the next paragraph.

3-Bachelor's Degree in Fundamentals of Architecture plus Master's Degree in Architecture, 2011 curricular program (*Grado en Fundamentos de Arquitectura y Máster en Arquitectura, plan 2011*). It was officially approved by ANECA (Spanish National Agency for Quality Assurance and Accreditation) in 11-07-2011, according to the official Spanish law RD 861/2010, article 28. This curriculum is a modification of Bachelor's Degree in Architecture 2008 Curricular program, and is the consequence of the professional demand in Spain in 2010, which required acquiring a Master's Degree after the Bachelor´s Degree as a compulsory academic step to becoming an architect.

The proposal suggests that the old Bachelors should not change, only the title (Bachelor of Fundamentals instead of just Bachelor). The rest should remain the same (ECTS credits, trimester or semester schedules, course competences, methodologies, hours, length, etc.).

The significant change is, firstly, the proposal for a new Master's Degree in Architecture, to acquire 100% professional certification as an Architect. Secondly, the Bachelor's Degree in Fundamentals of Architecture is the only pre-requisite to join the Master's Degree. In other words, other professionals or graduates of other curricular programs cannot be granted access.

Holding the bachelor's degree is sufficient in order to acquire partial certification as an architect (a design architect). Therefore, a Master's Degree is now required if the student wants to achieve 100% certification as an architect (design+technology).

This new scenario obliged UEM to change the titles of the Bachelor's Degree in Architecture (now Bachelor's Degree in Fundamentals of Architecture) and present the new Master's Degree in Architecture to the Ministry of Education. Once the Bachelor's Degree title needed to be reviewed (which means a new curriculum, 2011) it was presented again to the Ministry. Minor changes have been made in this new curriculum 2011, without changing the major degree corpus. Those small changes are:

1-Some courses changed names. For instance, *Construction I: systems* instead of *Construction systems, Design workshop G5* instead of *Design workshop at global scale*, etc.

2-A few courses changed semesters or academic terms. For instance, the course of *Materials* is in the third year in the 2008 curriculum, and in the second year in the 2011 curriculum.

Meanwhile, the competences covered in the courses have not changed. The only change is the way competences are described: in 2008 one skill could be written in many different ways/styles (example: Ability to represent spaces and objects, Capability of controlling graphic representation of space and objects, etc.). In 2011, the Ministry regulated a standardized way of describing each competence, with a specific code (example: Skill SC 1. Description: Capability of applying graphic procedures in space and object representation), which meant that skill SC 1 could be described only by that sentence.

In 2011, the Bachelor's Degree in Architecture (2008 curriculum) began to be phased out, as the new 2011 curriculum came into being. Therefore, the 2008 curriculum is a terminated degree program. Within five years, this curriculum will no longer exist. Therefore, its application in equivalency processes is not required. The recognition matrix between both curricula (2008 and 2011) shows the depth of equivalency and relations:

BACHELOR´S DEGREE IN ARCHITECTURE. (5 years)

2008 Curriculum

course	cred.	hours
Two dimensional representation workshop	6	72
Three dimensional representation workshop&image	6	72
Geometrical and architectural representation systems	6	72
Expressive techniques and analytic representation syst	6	72
Genesis of form	6	72
Models and prototypes	6	72
Spatial and information drawing	6	72
Applied mathematics	6	72
Process physics	6	72
Structural Physics	6	72
Structural dimensioning I	6	72
Structural dimensioning II	6	72
Soils and foundations	6	72
Constructive systems	6	72
Materials and components	6	72
Stuctural systems	6	72
Envelope systems	6	72
Building facilities I	6	72
Building facilities II	6	72
Technical systems I	6	72
Contextualized history of Architecture	6	72
Language and communication	6	72
Image analysis, contemporary art and architecture	6	72
Architectural criticism and the modern and contemporar	6	72
Architectural research and criticism	6	72
Urban development basics	6	72
Urban planning	6	72
Urban areas and sustainable design	6	72
City scale project workshop	6	72
Anthropometric scale Design Studio	6	72
Local intermediate scale Design Studio	6	72
Antropometrics, sociology and ergonometrics	6	72
Integrated intermediate scale Design Studio	6	72
Medium and large scale Design Studio	6	72
Architectural and urban design strategies (Design Studi	6	72
Global scale Design Studio	6	72
Specialized global scale Design Studio	6	72
Bussiness management	6	72
Professional internship	6	150
Deontology and values	6	72
General English	6	72
Industrialization and constructive process	6	72
Graduation project	30	360
Required elective	6	72
Required elective	6	72
Technical systems II	6	72
total	**300**	**3678**

BACHELORS DEGREE IN FUNDAMENTALS OF ARCHITECTURE
AND MASTER´S DEGREE IN ARCHITECTURE. (5 + 1 years)
2011 Curriculum

course	cred.	hours
Integrated Drawing workshop I	6	72
Integrated Drawing workshop II	6	72
Architectural drawing	6	72
Integrated Drawing workshop III	6	72
Architectural geometry	6	72
Integrated Drawing workshop IV	6	72
R&D+i Graphic expression	6	72
Applied Mathematics	6	72
Process physics	6	72
Structural mechanics	6	72
Structural analysis	6	72
Structural dimensioning	6	72
Structureal design and foundations	6	72
Construction I: Systems	6	72
Construction II: Materials	6	72
Construction III: Structures	6	72
Construction IV: Envelope	6	72
Building facilities	6	72
Conditioning techniques	6	72
Technical systems	6	72
History of art and architecture I	6	72
Communication skills	6	72
Introduction to contemporary architecture and art	6	72
Architecture and art of the 20th and the 21st centurie	6	72
History of art and architecture II	6	72
Urban development basics	6	72
Urban planning	6	72
Urban areas and sustainable design	6	72
Project workshop: city	6	72
Design Studio G1	6	72
Design Studio G2	6	72
Integrated workshop I	6	72
Design Studio G3	6	72
Design Studio G4	6	72
Integrated workshop II	6	72
Design Studio G5	6	72
Design Studio G6	12	144
Bussiness management	6	72
Internship	12	300
Deontology and values	6	72
General English	6	72
Technology projects workshop	6	72
Graduation project (bachelor´s degree)	12	144
Required elective (MASTER)	4	48
Required elective (MASTER)	6	72
Technology project workshop M1 (MASTER)	8	96
Land and landscape project	6	72
Sostenibility in the building environment	6	72
Design Studio G7	12	144
Design Studio M1 (MASTER)	12	144
Graduation Project (MASTER)	30	360
total	**360**	**4476**

Mission of the program

The Bachelor's Degree in Architecture was designed in order to adapt the pre-Bologna Degree in Architecture and make it fully compliant with the European Higher Education Area (EHEA). The specific objectives of the degree program are contained in the verification reports. Each degree program has its own verification report in which all the aspects relating to the degree are explained (justification, competences, access and admission, curriculum, assessment systems, educational activities, tuition methods, academic personnel and material resources). The Bachelor's Degree in Fundamentals of Architecture plus Master's Degree in Architecture are designed on the basis of market research and the recommendations put forward by panels of experts who establish the competences and objectives the students should acquire under each degree program. This program is regulated by the White Paper on Architecture published by ANECA (Spanish National Agency for Quality Assurance and Accreditation).

The Bachelor's Degree in Fundamentals of Architecture and the Master's Degree in Architecture qualify the graduate to practice the regulated profession of Architect under the Agreement of the Council of Ministers dated July 23, 2010. This degree is the prerequisite to the Master of Architecture, which provides 100% of the competences of the professional Architect (in the same way as in other countries, these competences are provided by a regulated internship and/or a state exam).

The program's mission is:

- To enable graduates to work in any of the five profiles of an architect's work: construction, urban planning, real estate, drawing, and design.

- To respond to the demands of society and the job market by introducing principles and knowledge related to sustainability and the environment, accessibility and internationality, communicative skills (in Spanish and English), business management and the efficient use of new technologies throughout the entire degree program.

- To prepare the graduate in a versatile and standard profile in the different fields of Architecture as demanded in national and international social and economic contexts.

- To develop core competences (CC), basic competences (BC), state competences (SC) and degree specific competences (DSC). All these competences are guaranteed during the studies. There are five learning areas covered by the different competences: art and humanities, science and technology, projects and production, management and integration of the four learning areas.

- To integrate all the different fields and areas through well-coordinated, integrated workshops and the Graduation Project.

- To develop and encourage general studies (liberal arts and sciences) through the general study courses and the science and liberal arts activities.

- To guarantee and improve the quality of the professional studies and the accomplishment of the NAAB Student Performance Criteria of these courses.

- To develop electives and minors during or after the program.

The Architecture Program Benefits Universidad Europea de Madrid through Discovery, Teaching, Engagement, and Service

Some examples of the specific benefits that the Architecture Program brings to the University are as follows:

- Exhibition in *Espacio Centrocentro* (the main Madrid City Council exhibition hall in central Madrid, Plaza de Cibeles), October 2013. Leadership in this issue, the first School in Madrid. This exhibition was so successful that the Madrid City council has asked the School to organize a second exhibition in *Espacio Centrocentro,* which will take place in September-december 2014.

- Academic year main topic: 2012-2013: Madrid Possible. 2013-2014: Beyond Now: these topics of the year promote integration between disciplines, improving the quality of teaching. Therefore, this topics are selected from among faculty/students proposals, with the aim of being useful to society.

- Architecture Week: workshops/seminars open to all architecture students (UEM and non-UEM), professors, researchers and professionals.

- The guest professors at the lectures, seminars and symposia increase the quality of teaching by contributing new points of view: We have received after NAAB visit 2: Anne Lacaton, Francis Keré, josep llinas, Marcos Cruz, Anatxu Zabalbeascoa, Stephano Boeri, fernando Romero, Iñaki Abalos, Bijoy Jain, and we received before visit 2: Víctor López Cotelo, Xavier Ferrés, Sebastiá Jornet, Xiangning Li, Beatriz Colomina (Princeton University) in *Espacio Trapecio*, Madrid, among others. We also send visiting professors abroad to prestigious institutions, like Andrés Jaque: GSAPP (Graduate School of Architecture, Planning and Preservation) Columbia University, Nieves Mestre: AA School in London etc.

- Awards: Many awards have been won by professors and students from our School, thus increasing the prestige of our community.

  Students´awards:

  After NAAB visit 2: Leonor Serrano, generation 2014 *Cajamadrid* award, European Hotel Design Awards 2013: Cristian Santandreu and Juan Manzanares, Award in V mostra of graduation projects from XII spanish Bienale: Iago Blanco and Angela Bailen, among others. Before visit 2: Architizer A+Awards (USA): Juan Manzanares and Cristian Santandreu; EASA 013 Zuzemberk: Antonio Cantero and Consuelo Fernández; OperaLAB: Diego de Las Heras and Gonzalo del Val; Archi-World Academy Award 2013: Juan José Sánchez; SAIESELECTION 2012: Juan José Sánchez; BEOPENAWARD 2012: Juan José Sánchez; COAM Graduation Project: Laura Monero Aldekoa, Leonor Serrano Rivas and Diana Santamaría

  Professors´ awards:

  After NAAB visit 2: Observatorio D´Achtall award: Victoria Acebo y Ángel Alonso. Honour distinction for the spanish pavillion in milano Global expo in 2015: Juanjosé Mateos, Camila Aybar and Paz Martin. Award Doctorate biennale Caja de Arquitectos, Spain: Oscar Rueda. Honour istinction in Medellin (Colombia) River competition: Andres Perea and Francisco Javier Gonzñalez. Award Prijs Bouwmeester 2013 for the project OostCampus: Carlos Arroyo

Before visit 2: Mies van der Rohe award: María Langarita and Víctor Navarro; FAD: Andrés Jaque, Xavier Aguiló, Enrique Encabo and Inmaculada E. Maluenda; VIII *Bienal Iberoamericana* of Architecture and Urbanism (BIAU): Enrique Encabo Seguí, Inmaculada E. Maluenda, Fuensanta Nieto and Enrique Sobejano; Exposynergy 2012: Javier Sanjuan; XV Awards *Colegio Oficial de Arquitectos de Galicia* (COAG): Liliana Obal; 100 Architects of the Year 2012. EXPO Civic Park, Daejeon, Corea: Uriel Fogué and Javier Sanjuan; Animal Awards: Camilo García; JUSTMAD award to creativity in Architecture: Uriel Fogué; DOMUS Best of 2012: Uriel Fogué; AD Heineken award: Víctor Navarro; Emerging Architecture Award: Víctor Navarro.

- Books/research papers:

  After visit 2: En tránsito V, *El arquitecto práctico* by Carlos Irsarry, Basic courses grasshopper by Vicente Soler and Oscar Liébana, Perspectivas urbanas VI. Before visit 2: Graphic expression: María Fullaondo and Ciro Márquez (October), Pedagogy of the project: Andrés Perea (editor) (December), The practical Architect: Carlos Irisarri (October), *En tránsito* V: the best graduation projects 12-13 (October), Book of activity: *La Arquitectura es inevitable* + Catalog for the exhibit of July 2013, Urban Perspectives VI: October 2012 session (October)

  Research lines/teams, Group: I_PAO – AIR LAB (International Projects Advance Architecture Office) - City research line; After visit 2 this research group has participated at the Architecture and Urbanism **V Biennale of Shenzhen and Hong Kong.** Prof. Pedro Pablo Arroyo and Prof. Jose Luis Esteban Penelas from the School of Architecture along with 10 UEM students of Architecture participated in the Architecture Biennale in Shenzhen and Hong Kong in 2014 by building a pavilion which shows the research architectural project “M.E.D. Meta Eurasian Diagonal”, carried out by the UEM research group Air Lab Cities.

  Group: MEDIT_URBAN - City research line; Group: ELAN - Sustainability research line; Group INTER[SECTION] FILOSOPHY-ARCHITECTURE Theory of Architecture research line; Group DIDACTICS OF THE PROJECT - Theory of Architecture research line.

- Strategic national and international alliances, like AA Visiting School (Architectural Association School of Architecture, London) , AEDES workshop in Berlin among others, workshop with architecture students from University of Bath at *Matadero* Madrid

The Institutional Setting of Universidad Europea de Madrid Benefits the Architecture Program

The Architecture Program benefits from its setting in an innovative, active, international research School. Some specific benefits of the School setting:

- Teaching innovation summit (*Jornadas de Innovación docente* JIU)
- Self-assessment quality system
- UEM Center of Excellence: research lines.
- PhD doctorate programs
- School of Architecture virtual agenda: news, activities
- Integration workshops: Wednesday, day of integration/activities

- Library
- Design studios-workshops
- Facilities (laser cutting machine, modeling room)
- Cross-disciplinary activities (Job Summit with Bill Clinton and others, *Honoris causa*…)
- Professional internship
- International mobility (students and faculty)
- International dual degrees (NSAD San Diego, etc.).
- Double degrees (Architecture and Art, Architecture and Design…)

Architecture program: development of young professionals through both liberal arts and practicum-based learning.

The Undergraduate program gives students an extensive foundation in the liberal arts and in the core education. Their skills in history, theory, drawing, geometry, computer science, physics, mathematics, mechanical engineering, languages (Spanish and English) and management skills are guaranteed in the curricular program. All these core courses account for 60 of the 300 ECTS credits of the program. Apart from these courses, the student has completed at Tertiary school level 96 ECTS of general studies (arts, humanities and sciences). See more detailed information at **Response from Program [2014]: II.2.2 Professional Degrees and Curriculum** (page 134).

The Program offers strong preparation in the areas of drawing, history-theory, urbanism, design, technology (structures, construction and building services), professional practice and internship. Required electives give the students the chance to focus in depth. These electives are taken during the undergraduate program (in the 2008 program) or during the Master program (in the 2011 program).

The learning process is practicum based in all the courses. The new EHEA promotes practical methodologies in all the degrees and courses (e.g. teamwork, learning based on projects, debates, case-studies, simulations, presentations, etc.), and we had been applying some of those methodologies even before the new European degrees were established in 2008 at Universidad Europea de Madrid. Since 2008, we have applied all the practical methodologies and reinforced them in all the courses, even in the courses which were traditionally less inclined towards these new ways of teaching in Spain (such as history, construction, etc.). Real cases and professional cases brought from our professors' architecture studios, engineering offices, and research/debate areas are analyzed in all the courses. The fact that nearly all our professors work as professionals in their architecture studios supports this strategy.

The effort to integrate disciplines through coordinated exercises among different courses (e.g. construction, design, urbanism, etc.) and the Integration workshops I and II, where professors from different fields and areas of expertise give feedback on the students' projects, helps the student to understand the real professional activity. This real professional life is multidisciplinary and needs to deal with different experts and points of view in order to integrate everything in the project. These integration projects are carried out mainly in the context of the Graduation Project.

The architecture program offers students a number of attractive opportunities to participate in national and international architecture competitions, where they are succeeding, and to work in real architecture studios through the course Internship.

I.1.2. Learning Culture and Social Equity

Academic/Studio culture policy

The Academic/Studio Culture Policy is reflected in several documents:
UEM students' statute, UEM faculty handbook, faculty career plan, and UEM staff ethical code.

Evidence that faculty, students, and staff have access to these policies and understand the purposes for which they were established

The students have access to UEM student´s statute:
http://www.uem.es/myfiles/pageposts/estatuto_estudiante_uem.pdf
Staff have access to the rest of the documents through Intranet (which requires a personal code to access):

UEM staff ethical code:
https://portal.uem.es/portal/page/portal/RRHH/C%F3digo%20de%20%C9tica%20y%20Conducta%20de%20Laureate

Faculty career plan: https://portal.uem.es/portal/page/portal/RRHH/Plan%20de%20Carrera%20Docente

UEM faculty handbook:
https://portal.uem.es/portal/page/portal/INTRANET/archivos_generales/GUIA%20DEL%20PROFESOR%20UEM%202012-2013.pdf

Evidence of plans for implementation of learning culture policies with measurable assessment of their effectiveness.

There is a plan to implement this policy and measure its effectiveness, led by the Academic Director.

Meetings involving the Dean, the Academic Director, the Faculty and the student representatives will be held at the end of each trimester, in order to follow up this policy.

Evidence that faculty, staff, and students have been able to participate in the development of these policies and their ongoing evolution.

The participation of students in the development of the Academic/Studio culture policy is through the council of student representatives and the student representative meetings.

The professors participate though the Faculty meetings and the Think Tank group, a special committee which includes 3 professors from the School of Architecture, as well as the participation of the Rector, the Vice Rector and selected professors from different UEM Schools.

Evidence that the institution has established policies and procedures for grievances related to harassment and discrimination.

- Academic equity

Students: The University code of academic equity for students is governed by the **Students' Statute**, which is at the following link: http://www.uem.es/myfiles/pageposts/estatuto_estudiante_uem.pdf . This code specifies the students' rights and duties. The main rules governing equity are as follows:

Art. 2.1

The student has the right to equal opportunities, without any harassment, in the enrollment and stay at the University, and in the exercise of his/her academic rights

Art 5.2

The student must respect the members of the whole University community.

The student has the duty not to discriminate against or harass any member of the University community on grounds of nationality, race, religion, opinion, age, disability, disease, sexual orientation, political opinions, economic and social status, physical appearance or any other personal reason

Therefore, there is a specific code to integrate **disabled students** into academic life: *http://www.uem.es/myfiles/pageposts/Atenci%C3%B3n%20a%20estudiantes%20con%20discapacidad%20y%20Carta%20de%20Servicios%20febrero%202011.pdf*

Faculty/employees

The UEM faculty handbook also guarantees equity:

Social responsibility *(pg. 6 UEM faculty handbook) defines this as a contribution and commitment to sustainable social development; exercising citizenship and helping to build peace and democracy, and maintaining a constructive, caring and responsible attitude towards civil rights and duties.*

- Academic integrity.

Faculty/employees: The University is governed by UEM staff ethical code of Laureate International Universities.https://portal.uem.es/portal/page/portal/RRHH/C%F3digo%20de%20%C9tica%20y%20Conducta%20de%20Laureate

Laureate launched a Code of Conduct and Ethics in 2004. As a part of the Laureate International Universities network, UEM adopted this Code and all institutional officers, faculty, and staff follow the Code of Conduct. In February 2012, Laureate launched a new Code of Conduct and Ethics, and all employees receive compulsory training on the Code. The Code offers general guidance on appropriate conduct and specific principles in such areas as: accurate records, proper use of assets and information, conflicts of interest, and bribery and corruption. A Chief Compliance Officer has been designated to address questions about the Code, to receive reports of possible misconduct, to help resolve issues, and to provide certain approvals under the Code.

We act with integrity. (Code of Ethics, Conduct and Integrity of Laureate International pg. 19)

Being trustworthy means dealing honestly with Laureate's students, student lenders, suppliers, competitors, and each other. We must not take unfair advantage of anyone through manipulation (such as exerting inappropriate influence), concealment, misrepresentation of facts, or any other unfair dealing.

The UEM faculty handbook also guarantees integrity:

Integrity *(pg.6) is the basis of performing the role of professor with ethics…respecting truth and justice in their personal and professional life.*

Students: The University code of academic integrity for students is governed by the **Student Code**, which is in the following link: http://www.uem.es/myfiles/pageposts/estatuto_estudiante_uem.pdf . This Code specifies the student's rights and duties.

Art 5.2

The student must not cheat in exams and shall not plagiarize the exercises, works and projects of other students or professionals

Evidence that the program has a plan to maintain or increase the diversity of faculty, staff, and students when compared with the diversity of the institution. If appropriate the program should also provide evidence that this plan has been developed with input from faculty and students or that it is otherwise addressed in its long-range planning efforts

The **diversity plan** is a task which must be developed by a joint faculty-student committee, and be accessible on the Architecture program website.

The components of this Plan will be as follows:

1. Follow up and Mechanisms to promote Diversity within The Program
2. Diverse Student Body
3. Diverse Faculty
4. Diverse Curriculum

1- Although our faculty is not as diverse as it should be, we are improving the diversity issue by collaborating with other institutions, by sending our professors to other countries within the framework of exchange programs, and by receiving international professors with diverse cultural backgrounds from different continents.

As regards students, we have a great deal of cultural diversity thanks to the large number of international exchange students, as well a reasonable number of permanent international students. Furthermore, we send a very high proportion of our students to other international institutions.

The diversity plan will allow us to follow up the evolution of diversity each year, by analyzing the data of faculty and students. Therefore, we will establish mechanisms for promoting this diversity and we will include in the annual School´s improvement plan specific actions for improving diversity.

2- The study-abroad courses enable our permanent students to experience diversity in other countries and cultures. The program includes exchange agreements with numerous institutions in many countries and continents, such as Brazil, Chile, China, South Korea, Australia, USA, Mexico, Colombia, Peru, Dubai, among others. Many of these countries, particularly in Latin America, are well known for their cultural diversity. Furthermore, nearly every country in Europe receives our students (France, Italy, Germany, UK, etc.). The program provides for one or even two international experiences lasting one or two years, in order to experience this diversity. This is why the program allows students to study abroad for one or two years. Many students spend one year in Latin America and another year in Europe, whereby they experience very diverse cultural backgrounds. Between 30 to 40% of our permanent

students study abroad for one year at least once during their studies, and this percentage is increasing each year.

There are some cooperation workshops which have given our students the chance to contribute to the development of under-represented groups (Morocco, Colombia…). The cooperation workshops have given our students the opportunity to meet other cultures and to collaborate with them on real social projects, like the cooperation project in Morocco in 2011 or the Micro project in Jaipur, India in summer 2013. The integration of the School of Architecture and the Engineering School will provide the program with more chances to participate in cooperation workshops, as the School of Engineering is very active in international cooperation workshops.

This diversity abroad comes back to UEM, as we also welcome many exchange students from all the receiving countries. In fact, the number of incoming exchange students exceeds the number of outgoing exchange students (130 students received in 2013-2014 or 120 students received in 2012-2013, as compared with 60 students sent abroad). They come from all the countries mentioned above. The most significant international communities come from Brazil, Italy and Mexico. All these students come from different cultural and social backgrounds, and we provide international tutors to guarantee their integration into the School. These students stay with us for one semester or one year.

There are also permanent international students at our University. Although the proportion is still small (around 5%), it is nevertheless growing each year. Whereas in 2012-2013 we had 37 new international students, in 2013-2014 this number rose to 56. The international profile of our program and faculty, as well as all the courses offered 100% in ENGLISH, help reinforce this tendency.

We have a Scandinavian community (Sweden and Norway), an Arabic-speaking community (Egypt, Lebanon, Libya), an Italian community, many Latin-American students, and some students from various European countries. Unfortunately, we do not have as many students from North America, Africa or Asia as we would like, with only one from USA and one from Cameroon.

3-Our faculty's profile is not as diverse as we would like; most of them are Spanish from similar cultural backgrounds. We have only 5 permanent international professors (from Brazil, Argentina, Colombia, Mexico and Italy). We balance this issue by means of three strategies:

> -Some of the Spanish professors have a solid international profile: these professionals, even though they are Spanish, have lived and worked abroad for at least two years (this item is very important in the IDI). Therefore, their profile contributes to diversity once they are back in Spain working at UEM. There are 12 professors from our faculty who have this international profile.
>
> -We invite many international professors from different countries and cultures: they stay with us for one day, one week, and sometimes one month (such as Professor Xiangning Li from Tongji University, Shanghai, or Professor Michael Stepner from NSAD San Diego, USA), and they contribute to the diversity in the faculty.
> http://arquitectura.universidadeuropea.es/escuela/ponente&interno=1&width=1600
>
> -There is a policy for sending our faculty abroad for one week or three months: these outgoing faculty programs improve our professor' international profile and help the community become more diverse. The number of outgoing professors has increased in the recent years: 5 in 2011, 10 in 2012, and 16 in 2013.

4-Diverse curriculum. All the different departments (projects, urbanism, history, technology) incorporate diverse international cases into the course programs. Many of the project locations are not in Spain but in other countries and continents, which means that students need to analyze the cultural background of these diverse cultures before designing. This analysis covers sociology, economy, land, climate, history,

etc. The same diversity is required in all the history and urbanism courses, which analyze architecture and urban design from foreign countries.

I.1.3. Responses to the Five Perspectives

Architectural education and the academic context

Currently, the School of Architecture offers a total of 15 officially accredited degree programs for this 2013-2014 academic year, including 2 Bachelor's Degrees -Architecture and Building Engineering- 13 Master's Degrees and 3 PhD programs, all of which are fully compliant with the EHEA. The School of Architecture has 1.038 enrolled students (759 students of undergraduate programs of Architecture) with a staff of 114 faculty members (December 2013).

Academic and professional standards for faculty and students: the School seeks the following standards in the faculty: part-time professors, with extensive professional activity and national and international experience in the profession/academia, from diverse cultures and backgrounds; strong social commitment, interests and ethics; language skills (Spanish and English), close to the student and empathetic, and graduated in a PhD program or about to graduate.

The School seeks the following standards in students: diverse cultures and backgrounds, international interests and strong vocation for Architecture and social commitment.

Interaction with other programs: The University provides a stimulating environment for the undergraduate and graduate students on two Campuses in Madrid: Villaviciosa, which is the main Campus with all the Schools and necessary facilities and all the undergraduate programs (including the Architecture undergraduate program), and La Moraleja Camus, which is a smaller campus focused on graduate programs. In any case, the most in-demand Architectural graduate programs, such as the Master in Architecture, or the Tricontinental Master's Degree in Architecture, are taught at the Villaviciosa Campus in order to interact these graduate programs with the undergraduate program of Architecture (for example, by organizing open graduate Master class to all the undergraduate community).

The interaction with other Schools is quite significant in the program; we often collaborate with the School of Art and Communication (seminars, exhibitions, or double degrees), the School of Engineering and the School of Social Sciences.

The program contributes to the core education, as there are 60 ECTS credits of General basic education courses (Arts, humanities, sciences and communication courses, 60 ECTS, i.e., 20% of 300 ECTS). Apart from these courses, the student has completed at Tertiary school level 96 ECTS of general studies by taking mandatory courses of Art, Humanities and sciences. The sum of the 96 ECTS at Tertiary School and the 60 ECTS in the program means that the proportion of general studies is 30% of the credits. This part is justified in more detail in **Part Three. Progress since Last Site Visit** at **Response from Program [2014]: II.2.2 Professional Degrees and Curriculum** (page 134).

Intellectual resources and personnel: There are 15 tenured/tenure-track faculty members in the Architecture Program, including 6 professors, 6 associate professors, 3 full professors, and 4 assistant professors. 20 faculty members hold the PhD degree, 3 of them having obtained it recently. Faculty have won or placed in many national and international design competitions (2010 Aga Khan award Fuensanta Nieto, 2013 AD Heineken award Navarro/Langarita, etc.), and have contributed significantly to Architecture publications. Almost all faculty members are active professional architects; most of them work in Spain and abroad.

Research programs and PhD programs are also a very important pillar in our academic context. The School of Architecture at Unversidad Europea de Madrid is one of only two private Schools of Architecture in the whole of Spain with PhD programs, even though we are a young School.

Contribution of students, faculty and administrators to governance: Through the School board meetings, the faculty meetings, the student representative meetings with the Dean and the Academic Director, the Labor Management Committee and the Council of Student Representatives, the whole community participates in the governance of our University and its intellectual and social life. Many of the decisions taken, exhibitions, publications and symposia have been proposals made by professors or students.

Architectural education and students

The educational goals of the program are as stated in the program's mission: one of its main points mentions **Student-centered learning**:

Thanks to facilities and learning areas that make use of the latest technology, reduced-size groups (ratio: 20 students/professor), academic advising, an exemplary library and a beautiful natural environment ideally suited to educational training and study. From its beginnings, this School has been at the forefront in setting up innovative methodologies for developing skills and values (such as team work, research, case studies, debates, presentations, etc.), where the student is the focal point of learning based on personalized learning from the time they become undergraduates until they graduate, and subsequently through their graduate specialization and research.

Access to the information they need to shape their future: The support services (Academic coordination, advisors and ombudsperson) guarantee the students guidance and personalized follow-up. All these roles give the student information about their present at the University and their future in the profession. Several meetings take place between student representatives and the Dean and Academic Director, in order to follow up the development of the program. There is no official architecture student assembly.

Embracing cultural differences, and respecting and cooperating with students who may be different: International perspective, one of UEM's strategic pillars, is part of the program and particularly relevant for the students. For this reason, one of the School's web windows is called INTERNATIONAL.

http://arquitectura.uem.es/?&interno=1&s=internacional&width=1436&seccion=1&lan=en

The School offers international exchange programs and international dual degree programs which help open our students' minds and enable them to learn about other cultures and other ways of understanding architecture and society, in addition to promoting multiculturalism by receiving international students and professors each year. The program recommends spending at least one year abroad, and allows students to spend two years abroad provided that each year in spent in a different country.

The program offers all its courses in Spanish or in English, and recommends taking as many courses in English as possible, in order to enhance students' future academic or professional mobility. Moreover, all these courses in English allow us to receive international non-Spanish speaking students who would not be able to come without this English offer (from Asia, parts of Europe, USA, etc.); and, as mentioned earlier, all these international students contribute to the diversity of our School. Multinational teamwork organized by the professors helps the different international students integrate with the Spanish students.

Leadership roles in the School and the profession: The School promotes its students' leadership at university and in the profession through exhibitions and by publishing their projects, as well as through

blogs, books, or the UEM website. As one of our strategic pillars, the students have a specific window called STUDENTS in the School's website:

http://arquitectura.universidadeuropea.es/?&interno=1&s=noticias&width=1436&seccion=1&lan=en

In this website there are five parts:

- Graduation projects
- Student awards
- Alumni
- Course blogs
- Course trips
- Professional Internship

The first four parts (Graduation projects, student awards, alumni and blogs) include most of our best students' projects and the most outstanding students' architectural awards, and our alumni professional websites. The main reason is that the program promotes their students work and skills through this public online publishing: we like to be very transparent and show society and future students our students' architectural profile, and what is going on inside the classes through the blogs.

It is worth highlighting the number of national and international awards our students have won.

Among the most prestigious awards for us are the Graduation Project (PFC) awards organized by the Madrid Architects' Association (COAM). Architecture graduates from all over Spain participated. There are 3 main awards (sustainability, landscape and innovation): two of the three winners were UEM students, and a third received a mention. This is a landmark in our history, as the standard of all the Spanish participants was extremely high.

http://212.145.146.10/ejercicio/concursos/concursos_ocam/120917_premiosCOAMPFC2012/120917_premiosCOAMPFC2012.html

Apart from that, we organize several exhibits of our students' works, either in the School of Architecture or in central Madrid, in order to be closer to the public (for example, forthcoming exhibition in July at Madrid City Council's exhibition hall *Centrocentro*, or the exhibition Tetuan townhall in 2013. We also publish our students' projects in very special books such as EN TRÁNSITO/IN TRANSIT (collection of the best Graduation Projects) or the annual "Activity Book" (*Libro de Actividad*) which includes all the year's best exercises and projects, and a research article by one of our professors.

Course trips also play an extremely important role in our students' learning: the program promotes and recommends at least one trip per year. Almost 70% of the students enjoy academic trips during their stay at UEM. Most of these trips are to destinations outside Spain, in order to enhance their international profile and learn from diversity.

The Professional Internship course is one of the most important courses in the program, and is closely related to one of UEM's strategic pillars: the PROFESSIONAL CONNECTIONS. This internship can be in Spain or abroad; it is a real professional experience in architecture offices, where the students learn how to work in professional teams, how to deal with real customers, and how to establish professional contacts. This professional internship lasts three months, and must be carried out in the fourth academic year, always before graduating.

Lectures, seminars, workshops…all these activities are essential for the program's development. Our School is especially active in organizing events, which can be seen in the web window NEWS, by academic years or by categories.

http://arquitectura.universidadeuropea.es/?&interno=1&s=noticias&width=1436&seccion=1&lan=en

Architectural education in Spain is quite multidisciplinary and includes a large volume of not only design but also technology (the Spanish architect can calculate structures and building installations, apart from designing and constructing buildings). For this reason, the students complete 4 main modules in an integrated way with the design studios: Propaedeutic module (**sciences** and **drawing**): 60 ECTS, Technical module (**construction, services, structures** and **mixed**): 72 ECTS, Studio project module (**Studio projects, composition-history, urbanism**): 120 ECTS, UEM Core module (languages, management): 24 ECTS. In addition, there are the Professional internship courses 12 ECTS we mentioned earlier and the Graduation project 12 ECTS (Bachelor's) and the Graduation Project (Master's). All the courses and curricula can be seen at:

http://universidadeuropea.es/en/academics/bachelors-degree-in-fundamentals-of-architecture--masters-degree-in-architecture#./bachelors-degree-in-fundamentals-of-architecture--masters-degree-in-architecture?&_suid=140361320071008571228192919938

Students' experience of the studio courses is very important.The Architecture studios, most of them located on the first floor of the School, are distributed quite flexibly in order to organize different activities (individual or collective feedback sessions, lectures, individual or team work, etc.). All these studios are well connected to the main hall (which the students use to organize exhibitions), the printing room, the model-making workshop, the cafeteria, and the library. All these design studios deal with national and international contexts of practice.

Architectural Education and the regulatory environment

In preparing students for the transition from School to practice and professional responsibilities, Deontology and values and Business management deal with issues students will face. Internship, legal responsibilities, registration, regulations, laws, and architecture office management are explored in depth in this course: in other words, the entire regulatory environment.

As regards the regulatory environment for the licensing of architects in Spain, the University is empowered by the State to award the license to practice architecture together with the Degree in Architecture, without any state exam and without any state-regulated professional internship. The architecture graduate can work as a professional architect the day after obtaining his/her degree. The architecture graduate can work as a collaborator with a fellow architect. If the graduate wants to be the author and person in charge of the Project, he/she must register with the professional governing body of architects of the city concerned (*Colegio de Arquitectos*). Only if the architect belongs to this professional body, and only if the architect submits the Project to this body as author or co-author, the professional body returns the Project to the architect with an official stamp certifying that this architect is the author or co-author.

This is the reason for the University's heavy responsibility, as the institution provides a professional with a professional license after graduating. There are several ways to guarantee control of the process and to guarantee the competencies needed by the graduate, by the State and by the University, during the student's stay at the School:

1-The Curricular program rules and regulations are strictly regulated by the State, in order to guarantee all the skills the architect requires. Minimum number of credits of the different areas (construction, design, history, urbanism, management, etc.) is specified. The specific competencies which the curricular

program must develop (similar to the student performance criteria defined by NAAB) are defined in detail. The duration of the studies, the total amount of credits, are also specified, as is the number of required courses, elective courses and basic courses. This rigid system avoids deviations and variations which could jeopardize the competencies defined, and this explains why all the curricular architecture programs are so similar in Spain. The definitions and regulations of these curricular programs are registered in several official documents and laws, such as the LOE (*Ley de ordenación de la Edificación*-Building Regulation Law), the White Paper on the profession of Architect by ANECA (National Accrediting and Quality Association, which is accountable to the Spanish Ministry of Education) and by different state laws (called REAL DECRETO, RD) passed by different Councils of Spanish Ministers.

2-Any curricular program proposed by any University must be approved by ANECA and the University Council, the highest advisory body of the Ministry of Education.

3-The program is audited by Fundación Madri+d (formerly called ACAP, the Madrid Region accreditation board, accountable to ANECA) within two years of the start of the program. The accreditation is renewed by Fundación Madri+d within 6 years of the start of the program. This accreditation is valid not only in Madrid but throughout Spain and the European Union.

4-The Graduation Project course is the last and most important step for becoming a professional architect, as it is the last "control test" to decide who can and cannot be a practicing professional. In order to guarantee the independence and fairness of the final grade of this Project and to ensure the graduate has all the competencies required to be a professional architect, the evaluation is made by a panel comprising three renowned professors and professionals who did not participate in the development of the student's Graduation Project. Therefore, one of the members of this panel must be an external professor or professional who does not work for the University, in order to guarantee the independence and impartiality of the process. All the candidates must present and defend their graduation projects in front of this panel. If the student does not pass this presentation, and the panel decides he/she is not sufficiently competent to qualify as an architect, the Graduation Project must be presented in the future until all the professional skills required are reflected in the Project. Sometimes it is a matter of making minor improvements; sometimes the student needs to start a new Project from square one if the mistakes and lack of competences are too serious. There are 4 sessions/opportunities per year to present this Graduation Project. Some students pass this test at the very first attempt, others at the second, third or fourth attempt, while others never pass it. This explains why the length of the process varies from six months to two years (in exceptional cases, even more than two years). These issues are defined in the Graduation Project regulations and in the official curriculum approved by ANECA.

As Miguel Angel Rodriguez from NAAB mentions in the Memorandum 4th February 2013 written by him in visit 1, "*Like all legislative procedures, these requirements are subject to change from time to time and these changes explain the existence of more than one academic Curricular program at the university with students enrolled in one or the other, both moving through the curriculum simultaneously*." For this reason, our Institution has several curricular programs (see part entitled "History of the Program"): 2000, 2008 and 2011, yet although there are differences between them (bigger differences between 2000 and the other two, very small differences between 2008 and 2011), they all reach the same point: their graduates are professional architects, who have passed all the courses and a Graduation Project in front of an independent panel.

This important graduation project (which needs to have 30 ECTS for official entry to the profession) is placed in the 2000 and 2008 undergraduate programs, however, in the 2011 curricular program it is placed in the Master's program. The 2011 undergraduate program has a Graduation Project (12 ECTS) which is not professional: its professional Graduation Project (30 ECTS) is in the Master. Hence, the Master in 2011 is mandatory for becoming a professional architect, because this 30 ECTS Graduation Project/control mechanism is placed in this master and is part of its corpus.

In conclusion, the three programs are essentially the same program (architect) with some variations which have depended on different Spanish governments. In any case, for the substantial equivalency process, we do not want to present the 2000 Curricular program for two reasons: there are some differences with respect to the other two (% of different credits, etc.) and in 2014 it will no longer exist, so we it will not be possible to audit it. However, 2008 is very similar to 2011: almost the same courses with minor changes in some names (see matrix page…), same credits, same competences... So, even though we present the 2011 program for the substantial equivalency process, we will also present the 2008 program for the entire number of courses which are mainly the same, as we can see in the matrix on page 13. Actually, the faculty and exercises are the same in both programs, and for the team room exhibition we will present works from both. The only significant difference is the mandatory Master in the 2011 program.

We do not know the proportion of graduates who have sought registration in the professional Governing body of Architects of the city (*Colegio de Arquitectos*) among the graduates from the 2008 curricular program. This is a task we must carry out for future visits, to have the information on the registration of our alumni.

Architectural education and the profession

Through the program, the faculty enables graduates to work in any of the five profiles of an architect's work in the profession: **construction, urban planning, real estate, drawing, and design.**

The program prepares the graduate **in a versatile and standard profile** in the different fields of Architecture as demanded in national and international, social and economic contexts.

One of the priorities of the Universidad Europea de Madrid School of Architecture is to produce professionals who are perfectly prepared, technically and intellectually, to meet the challenges and demands of our professions, Architecture and Building Engineering. We know that in a very competitive world and an increasingly demanding, interconnected society, people need to be equipped with the best possible training, and for this reason our students always occupy center stage in our teaching system.

Appreciation of the associated disciplines: Architecture, in its widest sense, is not just a technical discipline applied to the material world, but a powerful instrument for understanding and making sense of the physical environment in which human beings live and act. We can provide the guarantees that society will begin to demand of those who affect the environment only through a deep understanding of the phenomena of all kinds which act upon it, while also being aware of our responsibilities to future generations. What makes architecture most unique is its capacity to manage complexity, as this professional field tends strongly towards the multidisciplinary, the harmonizing of fields of knowledge and the interweaving of interests. This is why we offer double degrees in Architecture + Art, Architecture + Design, Building Engineering + Civil Engineering, and Building Engineering + Business Management and Entrepreneurship. This is why we teach projects through integrated workshops combining purely project-based and specifically technological approaches. This is why we support the hybridization of architecture with philosophy, music, economics or art.

Practice and research: All the undergraduate courses have a highly practical profile and we use efficient new methodologies (case studies, teamwork, projects, etc.) and technologies (virtual campus, digital software, digital screens) throughout the entire degree program to guarantee the practical profile of the program. We also prioritize research and graduate studies as irrevocably linked to our degree teaching activity.

Engaging with the professional community: Direct contact with the professions enables us to be constantly alert to the possibility of adding the most prestigious and experienced professionals to our faculty, while also paying heed to the most innovative professionals.

The second connection is through the panel of experts and professionals who have participated in the design of the Architecture curricular program.

Offering training which opens up as many professional options as possible leads us to a strongly international perspective. Architects and engineers from other countries continually visit us to give lectures and teach courses, while student and professor exchanges within Europe and in the context of the far-reaching Laureate network of universities all over the world attest to our international scope.

University training must be open to everyone who wants it, and to make this possible we provide all the facilities that are compatible with the high level of teaching quality we offer and with the needs of the students who are already involved in intense professional activity.

Conflicts between obligations to their clients and the public and the demands of the creative enterprise: In the Design courses part of the feedback training relates to this issue. Sometimes the student follows the project program –decided by the professor/client– without questioning whether this program and its needs are compatible with the public's needs or those of the creative enterprise. Sometimes the student questions the program, but in doing so forgets the needs of the customer. The professor's role helps the student to balance all these interests, which will be in conflict in a real-life professional context.

Ethics: the course, Deontology and values, deals with legal responsibility and ethics in the profession. Moreover, in all the Design courses the issue of ethics is a constant for upholding integrity within the profession. Our graduates are ready to respond to the demands of society and the job market by introducing principles and knowledge related to sustainability and the **environment, accessibility, ethics and social responsibility, relationship with the international Architect profile, communication skills** (in Spanish and English), and **business management**. Lectures and other off-class activities like **Applied ethics in architecture** by the journalist Anatxu Zabalbeascoa in 2014 reinforce the program's ethical commitment.
http://arquitectura.universidadeuropea.es/?&interno=1&s=noticias&width=1600&seccion=1&lan=en

Architectural education and the public good

Architectural Education at Universidad Europea de Madrid's School of Architecture addresses the public good through the topic of the year, coursework and its exhibits, seminars and conferences, projects developed for the institutions, open workshops, promotion of culture, participation in the media, participation in social projects and research. All these events and activities can be seen at:
http://arquitectura.universidadeuropea.es/?&interno=1&s=noticias&width=1600&seccion=1&lan=en

Topic of the year: Since 2011-2012, each year there has been a main topic which is activated in all the courses and architecture departments as a common line of action. This topic is chosen from different ideas contributed by professors (who can use their own ideas or those of their students), and its goal is to be a reflection and consideration from the body of architects/professors about something which can be useful in society. For example, the 2012 topic was **Madrid Possible**, and its aim was to offer thoughts, ideas and proposals on how to change Madrid in the context of the current crisis, how to take advantage of certain empty spaces, abandoned private and public spaces, etc. The topic for 2012-13 is **Architecture Beyond Now**: it is about other possibilities for working in architecture beyond the traditional areas of activity (design, construction, management, urbanism), with a view serving society better. The word *now* refers to how urgent this issue is, as both the crisis in general and the specific crisis in the field of architecture demand a major change of profile as soon as possible. It also alludes to the citizens' movement Real Democracy Now, the non-political movement which demands a more transparent democracy by introducing open lists of political party candidates, greater citizen participation in politics (not just once every four years), etc.

Course work/exhibits: in many cases, the case studies carried out in the Design or Urbanism classes respond to real problems and challenges in the city and in society.

For example, the topic of the year at the School has been "Madrid Possible", its goal being to develop new options to redesign and reconsider the city of Madrid, in order to mitigate social and environmental problems: all the students' design ideas and urban planning proposals were seen by the public and politicians alike at the Exhibition in *Espacio Centrocentro October 2013* (the main Madrid City Council exhibition hall in Plaza de Cibeles, central Madrid, which receives 1,200,000 visitors/year). Our School is a leader in this area, being the first School in Madrid to organize an Architecture exhibition open to all at this public venue. The new "topic of the year" promotes the new exhibition of our School's work, which will be organized at *Espacio Centrocentro* in 2014.

Another important exhibition is the one organized at the COAM (Madrid Board of Architects) in 2013, *Arquitectos por el mundo* (architects around the world), which featured the participation of 5 of our most renowned professors: Pedro Palo Arroyo, Fuensanta Nieto, Carlos Arroyo and Uriel Fogué. http://arquitectura.universidadeuropea.es/?&interno=1&s=noticias&width=1600&seccion=1&lan=en . This exhibition is one of the main activities of "Architecture Week" (*Semana de Arquitectura*) in October is quite important because of its exhibitions and seminars open to the public. We organize workshops/seminars open to all architecture students (UEM and non-UEM), professors, researchers and professionals. For example, the last UEM Architecture Week featured events organized at various places in the city of Madrid, including a debate between Elvira Lindo, the renowned Spanish author, and students of Architecture at FNAC, one of the main bookshops in Madrid.

Seminars/Symposia/congresses:

Many of the activities are organized in Madrid, such as the latest symposium "At the limit of criticism" (*Al borde de la crítica*) about criticism/architecture held at *Espacio Trapecio* in Madrid in April-May 2013. This symposium had three parts: the first about Architecture and communication, with the participation of professionals from the world cinema, the second about criticism and the city with Beatriz Colomina (Princeton University) and the third and final part about the city and the media, with the participation of leading journalists.

We should also mention the Urban Debates forum in public spaces in Madrid with high media impact, featuring the participation of professors, urban planners, sociologists, journalists, etc. and open to the general public. These debates are documented in the "Urban Perspectives" (*Perspectivas urbanas*) publications.

Another important seminar was *Crisis, What Crisis?* (Fernandez Galiano and Miguel Aguilo) about how to face the crisis and how professional architects and engineers are committed to their respective professions, held at the *Círculo de Bellas Artes* in Madrid.

Workshops open to students of other disciplines and Universities, e.g. in 2011, *Sweet Home City* about new ways of living in the city, by Professor Andres Jaque. The ethical implications of decisions and the social problems are issues developed in this workshop. Other relevant workshops include the "Introduction to TEKLA" workshop for S-BIM in 2014.

Another milestone at the School will be the graphic communication congress APEGA, which will be organized by the School of Architecture in November 2014.

Promoting the Culture-Architecture alliance:

For example, there is an agreement between UEM and the National Music Auditorium (*Auditorio Nacional*), whose director was Gerard Mortier (unfortunately, Mr Mortier died recently). Under this agreement UEM promotes classical music and offers concert tickets at a huge discount to all its students of Architecture. Both parties benefit from this arrangement: the National Auditorium gains a young audience on the less popular days of the week (Monday-Tuesday-Wednesday) when attendance figures are very low, and UEM promotes culture and classical music among its students and future professionals.

Consequently, we have organized symposia on music, society and Architecture (dialogue between Gerard Mortier and the architect Dominique Perrault), and there is also an agreement between UEM and Madrid Opera House (University to Stage), whereby our students participate in the staging of opera productions.

Another interesting and liberal arts activity was the seminar *El club de la lectura* (Reading Club) with the participation of the famous writer Carmen Posadas in 2014. This seminar explored the interaction between the fields of literature and architecture.

Participation in the media:

During Architecture Week in 2011, we organized a symposium bring together architects and urban planners in the activity “Fresh Madrid”, with the participation of Ariadna Cantis, at *El Matadero Madrid*. We received several pages of coverage in *El País* (one of the most widely read daily newspapers in Spain), and our Dean was interviewed on national radio.

Participating in social development projects and sustainability projects:

UEM students and faculty have participated in several collaborative and social projects, for example in Colombia, Morocco and India.

Habitat Day at Universidad Europea de Madrid, October 2012: symposium organized in conjunction with the Ministry of Public Works-Department of Architecture, and the ONU-HABITAT office in Spain. The main topic of this symposium was the right to housing in all countries and at all social levels. http://comunidad.uem.es/urbhistoria/2012/11/8/celebracion-oficial-del-dia-mundial-del-habitat-ciudades-en

Research projects:

There are three main lines of research: The City, Sustainability, and Theory of Architecture. Several research teams join the research lines:

- Group: I_PAO – AIR LAB (International Projects Advance Architecture Office) - City research line
- Group: MEDIT_URBAN - City research line
- Group: ELAN - Sustainability research line
- Group INTER[SECTION] FILOSOPHY-ARCHITECTURE Theory of Architecture research line
- Group DIDACTICS OF THE PROJECT - Theory of Architecture research line

In addition, a new research digital magazine organized by the School of Architecture named REIA has started with its first number in 2014. It is possible to read this magazine at: http://www.reia.es/Numero01.html . Number 2 of the magazine is in progress.

Projects developed for the institutions

Agreement with Madrid City Council: The students submit their ideas for the Master Plan of Madrid to the City Council's urban planners, following their visit to our School –as real clients– to explain to the students the main goals of the Master Plan.

Exhibition of students' planning projects in several towns in the Madrid region, including a presentation of these projects for the consideration of the mayors and urban planners of the different towns.

Universidad Europea-University of Pennsylvania-University of Las Palmas (Canary Islands) agreement for developing urban proposals led by faculty and students from both Universities on the island of Gran Canaria.

Agreement between Universidad Europea and several towns in the Madrid region, for the purpose of developing their urban accessibility projects (architects + building engineers), as in the town of Villalba.

Orange Week: A collaboration between our institution and the Dutch Embassy. We organize an exhibition of recycled furniture and buildings at *El Matadero Madrid*, focusing on design for the public.

I.1.4. Long Range Planning

Description of the process by which the program identifies its objectives for continuous improvement

The long range planning is defined at three levels: Universidad Europea de Madrid strategic plan, School of Architecture strategic plan, and Architecture program strategic plan.

Universidad Europea de Madrid strategic plan. The University's strategic plan is updated every year.

School of Architecture strategic plan. The School has a specific plan that is aligned with Universidad Europea de Madrid's strategic plan. The strategic plan has an annex document called School Improvement Plan (*Planes de mejora de la Facultad*)..

The strategic plan is presented to the Faculty each year in the semester faculty meetings, and the Faculty gives feedback that can be compiled for updating the next School strategic plan. This plan is also updated every year. The current plan's strategic objectives are listed below:

- To improve faculty quality, seeking a double-profile professor**:** international and research-based profile. English speakers, PhDs, international academic and professional experience.
- To improve research activity in the School, by consolidating the current research teams, creating new teams, obtaining financial aid for research programs, founding a research journal, and encouraging and helping our faculty body to incorporate more PhD holders and researchers.
- To invite more top-level guest professors and to send more UEM visiting professors abroad
- To increase diversity and international exchange destinations and international dual degrees, permanent international students in undergraduate and graduate programs and international professional internships
- Consolidation of the 100% English architecture programs.

- To obtain international accreditations.
- To design more graduate programs and certificate courses, both national and international.
- To increase student satisfaction (surveys) with the School and faculty through different actions such as personalized advising and guidance.
- To improve/increase the shared spaces for student teamwork/individual work.
- To define the outlines of the different programs' strategic plans.
- To increase external collaborations with the profession, society, alumni, and national and international institutions

School Improvement Plan (*Planes de mejora de la Facultad*). This plan is a development of the School Strategic Plan and focuses on things that should improve, giving specific data, actions, etc. which are **measurable**. This plan is led by the Academic Director, and includes:

- Items which are problematic, or which should be developed even though they are all right.
- Specific improvement actions for these items
- Role or department responsible for the action and its follow-up, and deadline for the action
- Reference data (for example, if one negative item is *dissatisfaction of students with the coordination of courses*, this problem is detected by the score in the annual surveys, e.g. 3.2 out of 5)
- Improvement goal (if the negative data is 3.3, we can establish an improvement goal of 3.7, for example)

Architecture program strategic plan. The program has a specific plan that is aligned with the School of Architecture strategic plan. The strategic plan has an annex document called Program Improvement Plan (*Planes de mejora del programa*).

The Architecture program strategic plan is also presented to the faculty at the semester meetings. This strategic plan is led by the Dean, the Program Manager and the Academic Director. The current plan's strategic objectives are listed below:

- To promote integration and coordination between different fields and courses of the program.

  This is done through a horizontal integration of the different courses of the same academic year (for example, the integration of Construction II, Integrated Drawing Workshop III, Design Studio G1, courses from the second academic year), and a vertical integration of the related courses from different academic years (for example, the integration and coordination of all the Design courses, from Design Studio G1 to Design Studio G7). The academic year coordinators and the Academic Director guarantee the coordination between the courses.

  Therefore, the academic year coordinators and the Academic Director deal with different common and integrated exercises where professors from different fields (projects, construction, urbanism, history, etc.) participate. These exercises are carried out by the students and are compulsory, and they are led mainly by the professors of Projects/Design.

The topic of the year has done much to improve integration and collaboration between different courses that have taken this topic as the course *leitmotif*. Not all the course exercises follow this topic, only those which are coordinated with other courses.

This integration effort is especially significant and constant in three courses: Integration Workshop I, Integration Workshop II, and the Graduation Project. These three courses have different professor profiles: design, urbanism, construction, structures, building installations. The different professors give feedback on each student's work from their expert point of view.

The schedules must contribute to the integration: for example, all design courses are on Tuesdays and Fridays, in order to facilitate inter-coordination. And there are no classes on Wednesdays, so that groups can organize themselves on Wednesday for integrated and multidisciplinary activities.

The panel's collective feedback sessions held at the end of each semester show all the students' works, with the participation of professors from different areas of expertise. A visiting professor is also invited.

- To develop and control the program outline

  One of the missions of the course coordinator is to develop the course syllabus (very concise) and transform it into a program outline (more detailed). This program outline must include the main competencies of the course, topics, subtopics, calendar, evaluation criteria, evaluation systems (exams, presentations, projects, etc.), bibliography, academic methodologies (teamwork, case-studies, presentations, debates, etc.). It is extremely important to guarantee the competencies defined by the official curricular program. Each topic, each exercise, must include specific competencies; likewise, it must include the different NAAB's Student Performance Criteria items. The program coordinator, who has a general view of the program, reviews these program outlines with their course coordinators, in order to guarantee the competencies, to avoid repetitions of topics from different academic year courses (for example, by comparing Construction II and Construction III to make sure a subtopic is not repeated) or to detect missing topics.

- To nurture a diverse and intergenerational community of students and faculty

- To provide internationality

- To promote the correct use of language (Spanish and English)

- To provide sustainability, accessibility, and social commitment in all areas

- To promote links and collaboration with other disciplines (art, design , social sciences, engineering)

- To continue promoting out-of-class and off-campus academic activities (seminars, trips, lectures, exhibits, etc.)

Program Improvement Plan (*Planes de mejora del Programa*). This plan is a development of the Program Strategic Plan and focuses on things that should improve, giving specific data, actions, etc. which are **measurable**. It works in the same way as the School Improvement Plan and is also led by the Academic Director, but focuses on specific issues of the program.

Description of the data and information sources used to inform the development of these objectives.

The data and Information come from the following sources:

- Surveys: The surveys are aimed at different groups of people (students, staff, etc.) and are managed by the Quality Department. The students fill out two types of surveys:

  1- Surveys about each of their professors
  2- Surveys about the University/School/Program

  The faculty members fill out one type of survey, about the University.

- Student Services: This service is adapted to each student's needs and gives the School a lot of information about possible problems.

- Academic Coordinator/faculty tutors. These roles are very close to the day by day of the student, and get information.

- Ombudsperson: Provides advice on academic consultations, detects problems in order to take a preventive action, proposes solutions, and makes suggestions and recommendations to improve the University.

- Suggestion box: The Quality Department has a suggestion box at the students' disposal.

- Meetings between Dean and student representatives: The reports of these meetings (held once every trimester) provide very useful data for improvement actions.

- Faculty meetings: There are two faculty meetings per year (all faculty members) and every two months there is a specific department faculty meeting. All the information given to the Dean and the Head of Department is also very important.

- Reports from other departments: for example, report from the Rector's Office, the international department, the quality and research department, enrollment department, marketing department, Office of the Registrar, etc.

- Report from the Student Representative Committee. This committee holds several meetings without staff members, and provides a lot of information and proposals through its reports.

- SIGECA: This is a University software tool which compiles all the data of the students, faculty, programs, tuitions, statistics, schedules, teaching hours, etc. It is possible to check in SIGECA the students' grades and transcripts, number of students, courses, schedules, etc. This information is sometimes confidential (students' personal details), which is why this tool is only accessible to the Dean of the School and the Faculty board (Academic Director, Program Manager, and Department Heads).

- Off Campus opinions/reports: Council of Architects, Alumni, Council of Universities, ANECA, Ministry of Education, media, accrediting/rating agencies, etc.

Description of the role of long-range planning in other programmatic and institutional planning initiatives.

According to Universidad Europea de Madrid Strategic Plan

Description of the role the five perspectives play in long-range planning.

- Architectural education and the academic context

  The strategic plan promotes collaboration with other disciplines (liberal art, sceinces) and focuses on the improvement of the double degrees shared with those Schools. Therefore, the strategic plan aims to increase the number of tenured faculty members and the number of PhD professors.

- Architectural education and students. The strategic plan focuses on our students in several ways:

  Promoting an international academic experience and linking this experience with the international internship experience. English and other languages are strategic tools for this goal.

  Focusing on employability and new ways of working as an architect

- Architectural education and the regulatory environment
  The strategic plan focuses on the quality and guarantee of the Graduation Project process in order to ensure legal access to the Architecture profession according to the regulatory environment.

- Architectural education and the profession

  Improving day by day the social responsibility of the graduates, and their interest in sustainability, accessibility and ethics

  Improving the current high quality of our graduates in the different architecture competences (design, urbanism, management, technology, humanities) by raising the standard of the School's faculty and facilities

  Strengthening the links with national and international professionals and professional boards

- Architectural education and the public good

  We must increase our contributions to the public good, through more projects developed by students/faculty built in our cities, more social development projects, more intellectual contributions to debate on Architecture/Politics/Economics, more research, etc.

I.1.5. Program Self-Assessment

Description of the school's self-assessment process, specifically with regard to ongoing evaluation of the program's mission statement, its multi-year objectives and how it relates to the five perspectives.

There are two self-assessment programs: one organized by Universidad Europea de Madrid, and the other organized by the School of Architecture.

Universidad Europea de Madrid has a specific self-assessment process. The University has always supported the implementation of a Management System that permits the Policy and Strategy to be developed throughout the organization and one that is consistent with its activities as a whole. Following the creation of the Quality Management Department in 2000, with the aim of instilling a culture of quality and continuous improvement allowing us to be the reference for Academic Excellence in the university, an Internal Quality Plan was developed. The objective of this plan was to stimulate and develop an efficient management system to guarantee the link between the general policies and strategies and the activities of each department through a self-assessment process. This quality plan has been strengthened with the design and implementation of an Internal Quality Assurance System (SGIC) that forms the basis for developing new degree programs within the framework of the European Higher Education Area.

The SGIC implemented at the University has been designed on the basis of the guidelines proposed to Spanish Universities in 2007 by the Spanish National Agency for Quality Assurance and Accreditation (ANECA) as part of its AUDIT Program. The aim of this program is to guide universities in the design and implementation of the Internal Quality Assurance Systems (SGIC) required to ensure the new Bachelor's Degrees, Master's Degrees and PhD Programs meet the quality criteria. The SGIC is managed by a Quality Guarantee Committee comprising the Vice Rector of Quality and Innovation, two managers from the Quality Department, all the Academic Directors of the different Schools (including the Academic Director of the School of Architecture), HR manager and library manager. Among other functions, this committee establishes the quality guidelines, the main processes which must be accomplished at the University, and the self-assessment of the processes, processes which are reviewed every year. These processes are described in 20 procedures, called PG (General Procedures).

https://portal.uem.es/portal/page/portal/INTRANET_CALIDAD/Calidad/SGIC%20(Sistema%20de%20Garant%EDa%20Interno%20de%20Calidad)/MAPA%20DE%20PROCESOS.pdf

PG01- Goals and Policy of Quality
PG02- Quality Guarantee of Academic Processes
PG03- Student-orientation
PG04- Teaching-orientation
PG05- Admission of New Students: Profiles
PG06- Internships
PG07- Student Mobility
PG08- Professional Orientation
PG09- Human Resources Policy
PG10- Recruiting
PG11- Staff Training
PG12- Evaluation, Promotion and Recognition of Staff
PG13- Management of Resources
PG14- Management of Services
PG15- Public Information
PG16- Analysis and Measurement of Results
PG17- Control of Documents
PG18- Control of Records
PG19- Satisfaction of Stakeholders
PG20- Internal Audits

The Quality Department organizes internal self-assessment audits, described in PG20, in order to prepare ourselves for the official *Fundación Madri+d* (before named ACAP) Audits. The internal audits have three objectives:

- Assess the effectiveness of developing and implementing the undergraduate, graduate, and PhD degree programs, obtaining information pertinent to University governance and to other stakeholders.
- Assess its conformity with SGIC procedures, obtaining information on its compliance (non-compliance), and as necessary, undertaking corrective and/or preventive measures.
- Identify opportunities and offer improvement recommendations for the undergraduate, graduate, and PhD degree programs and for the University in general.

Improvement plans regarding degree programs, departments and services and the University in general are set up every year and submitted for approval by the Academic Council.

The own culture of UEM Quality involves learning and continuous improvement in all areas. This aspect makes each and every one of the areas / departments of the University are involved in the annual development of improvement actions, always aligned with the University´s strategy.

These improvement actions are defined by the Quality Assurance Committee (CGC) from the results of the various audits and internal evaluations conducted and subsequently approved by the Governing Council, incorporating key aspects of the University's strategy.

In the internal Audits the auditor interviews all the management staff, and focuses the interview on the specific procedure of the manager (for example, the auditor interviews the Manager of International Programs about compliance with procedure PG07-Student Mobility, the person in charge of professional internships about procedure PG06-Internships, etc.). The auditor also interviews students and professors, and requests documents, evidence, data, etc. during the audit.

On a more regular basis than these University internal audits, the School carries out a constant self-assessment follow-up of the program in order to update the strategic plan of the School and the program, and the Improvement plans. This self-assessment takes place in the following forums:

- Faculty board meetings. This is a weekly meeting of the Dean, Academic Director, Manager of undergraduate programs, Student Service Director, and Manager of graduate programs. At these meetings, of which Minutes are drawn up at the end, the faculty board members analyze different issues in a self-assessment process: student results, faculty results, regulations, professional needs and the public good. Improvement and action proposals are made after the self-assessment by all of the members, and the Dean makes the final decision.
- There are separate meetings between the Dean and all the Faculty board members/directors. These meetings, which are more specific, self-assess and analyze specific issues in the director's area (students' academic issues with the Academic Director, faculty issues with each head of the department, etc.).
- Department meetings: Monthly meetings between the Head of the department and his/her professors
- Faculty meetings: Semestral meetings between the Dean, the Faculty board and all the faculty members
- Student representative meetings: Trimestral meetings between the Dean, the Academic Director and the student´s representatives.
- Academic council: Weekly meetings between the Rector and the Deans of different Schools
- Data Analysis: Academic Director, Student Service Director and Program Manager. The Academic Director is responsible for the School's quality and self-assessment. He/she analyzes

data from all the sources: SIGECA (University data system), meetings with students, meetings with student representatives, feedback from Ombudsperson, reports from other departments, surveys, etc. If the issue is academic/student-related he deals with it himself. If the issue is related to lecturers/professors, he sends it to the head of the department. If the issue is global and strategic, he sends it to the Dean. If the issue has something to do with the program, he sends it to the Program Manager and the Student Service Director. The Academic Director and the Program Manager carry out an in-depth self-assessment on the program themselves.

- Trimestral faculty evaluation: Each trimester the faculty is evaluated by the students through surveys, which are analyzed by the heads of the department and the Dean.
- Trimestral program evaluation: Each trimester the program is evaluated by the students through surveys, which are analyzed by the Academic Director, the Program Manager and the Dean.
- Trimestral student evaluation: Each trimester the students are evaluated by their professors from different courses, for which purpose they meet together in a room. The course professor is the one who evaluates; however, he/she takes into account the student's results in other courses, and has a general view. The program coordinator attends these meetings and also gets an overview of the courses, and reports to the Program Manager and the Academic Director.
- Focus groups: In some special cases, a focus group can be organized for the purpose of analyzing a specific problem/issue or opportunities for improvement.

Description of the results of faculty, students', and graduates' assessments of the accredited degree program's curriculum and learning context as outlined in the five perspectives.

- Architectural education and the academic context

  There is a shortage of research publications and journals, and a digital research journal is a serious demand for the program.

  The faculty surveys and the students' feedback on their professors are generally very positive. The average rating is 4.1 out of 5.

- Architectural education and students

  Students would like to participate more in the School's decisions. They also complain about certain management issues (the enrollment period, registrar procedures, etc.). They demand more spaces for working at the University. However, they think the quality of the program and the faculty is extremely high.

  As regards all the out-of-class academic activities (lectures, seminars, trips, exhibitions, etc.), we have seen they appreciate them but sometimes are unable to participate in all of them either for schedule reasons or because of lack of time (they have a lot of work to do, but sometimes they do not realize a lecture or seminar can help them learn more and work more efficiently than a standard class).

  The students really appreciate all the international options at their disposal: English groups, international students, exchange programs, dual degrees, etc.

- Architectural education and the regulatory environment

  The new regulatory environment is still relatively unknown among students and some of the faculty, and this adds a certain degree of insecurity to normal academic life. The reason is that

there were three different curricular programs of Architecture in 11 years (2000, 2008 and 2011). Besides, some students do not realize how important it is to correctly regulate and control the Graduation Project process, as well as access to the profession of Architect.

- Architectural education and the profession

  We can proudly say that the profession (national and international) is very satisfied with our graduates. The satisfaction surveys, the rate of employability, the international competitions won by our students, demonstrate they are very highly-rated professionals, and perfectly adapted to the demands of the profession both in Spain and abroad.

  However, we should not be complacent in this respect, and we must increase our collaborations with the profession in order to improve our graduates' profile in accordance with the demands and recommendations of the profession.

- Architectural education and the public good

  In this scenario of general financial crisis, the School can continue to propose ideas, even though they are unlikely to come to fruition in the short term.

  The challenge is to produce non-material things, through research, public debates, exhibitions, etc. that bring us closer to the city and to the public. This means we should organize more events in Madrid and abroad and increase this tendency.

Description, if applicable, of institutional requirements for self-assessment.

UEM maintains a close relationship with the Spanish National Agency for Quality Assurance and Accreditation (ANECA) by taking part, for example, as a speaker in the "Seminar on Approaches and Practice for Quality Audits in Europe" and in its VERIFICA and AUDIT Programs.

All the undergraduate and graduate degrees offered by our University have been positively assessed through this VERIFICA program.

As part of ANECA's AUDIT program, whose aim is to implement Internal Quality Assurance Systems (SGIC) in Spanish universities, our University was one of the first two universities in Spain and the first private institution to have achieved positive verification of its design. The scope of the SGIC covers all the officially recognized degree programs for which UEM is responsible (Bachelor's Degrees, Master's Degrees and PhD Programs), which is why information is obtained on each one of these programs. This information is particularly important for their follow-up. In addition, the UEM SGIC aims to include as part of the PGC20/Internal Audits procedure, the performance of the Internal Audits that have three objectives:

Evaluate the effectiveness of the development and implementation of the Bachelor's, Master's and PhD Degree programs, obtaining information pertinent to the University governing bodies and to the other stakeholders.

Evaluate its conformity with the procedures of UEM's Internal Quality Assurance System (SGIC), obtaining information on its compliance (Non-compliance) and, where appropriate, undertaking Corrective and/or Preventive Measures.

Identify opportunities and make improvement recommendations for the Bachelor's, Master's and PhD Degree Programs and for the University in general.

Description of the manner in which results from self-assessment activities are used to inform long-range planning, curriculum development, learning culture, and responses to external pressures or challenges to institutions (e.g., reduced funding for state support institutions or enrollment mandates).

Self-assessment informs long-range planning: Assessment of strengths, weaknesses, opportunities, and threats is reflected in the Strategic plans

Self-assessment informs curriculum development: The academic year coordinators committee and the Faculty Board propose changes in the program.

Self-assessment informs learning culture: the Academic/Studio Policy and the Diversity Plan are developed by the self-assessment inputs

Self-assessment informs responses to external pressures/challenges to institutions. The Architecture program Manager receives information from external institutions. This feedback assesses the program.

I.2. Resources

I.2.1. Human Resources & Human Resource Development

Faculty/Staff

Matrix for each of the two academic years prior to the preparation of the APR, that identifies each faculty member, the courses he/she was assigned during that time and the specific credentials, experience, and research that supports these assignments.(see Faculty Matrices below).

FACULTY MEMBER	CREDENTIALS	101-APPLIED MATHEMATICS	102-COMMUNICATION SKILLS	103-INTRODUCTION TO	104-ARCHITECTURAL DRAWING	105-INTEGRATED DRAWING WORKSHOP I	106-PROCESS PHYSICS	107-CONSTRUCTION I. SYSTEMS	108-URBAN DEVELOPMENT BASICS.pdf	109-ARCHITECTURAL GEOMETRY	110-INTEGRATED DRAWING WORKSHOP II	201-CONSTRUCTION II. MATERIALS	202-STRUCTURAL MECHANICS	203-ART AND ARCHITECTURE OF THE 20TH AND	204-INTEGRATED DRAWING WORKSHOP III	205-DESIGN STUDIO G1	206-CONDITIONING TECHNIQUES	207-STRUCTURAL ANALYSIS	208-URBAN AREAS AND SUSTAINABLE DESIGN	209-INTEGRATED DRAWING WORKSHOP IV	210-DESIGN STUDIO G2	301-BUILDING FACILITIES	302-BUSSINESS MANAGEMENT	303-URBAN PLANNING.pdf	304-INTEGRATION WORKSHOP I	305-DESIGN STUDIO G3	306-CONSTRUCTION III. STRUCTURES	307-STRUCTURAL DIMENSIONING	308-HISTORY OF ART AND ARCHITECTURE I	309 INTEGRATION WORKSHOP II	310-DESIGN STUDIO G4	401-GENERAL ENGLISH	402-CONSTRUCTION IV. ENVELOPE	403-HISTORY OF ART AND ARCHITECTURE II	404-CITY PROJECT WORKSHOP	405-DESIGN STUDIO G5	406-TECHNICAL SYSTEMS	407-STRUCTURAL DESIGN AND FOUNDATIONS	408-DEONTOLOGY AND VALUES	409-DESIGN STUDIO G6	501-502 PROFESSIONAL INTERNSHIP	503-SUSTAINABILITY IN BUILDING ENVIROMENT	504-DESIGN STUDIO G7	505-GRAPHIC EXPRESSION R&D	506-TECHNOLOGY PROJECT WORKSHOP	507-LAND AND LANDSCAPE WORKSHOP	508-GRADUATION PROJECT (bachelor's degree)
Andres Abasolo	Assoc prof. Bs in Architecture Escuela Tecnica Superior de Arquitectura de Madrid and Royal School of Architecture and Art Copenhagen (Denmark). Registered Architect with 10 years teaching and professional experience. Expertise on graphic communication, design and architectural criticism. Design and art work exhibited in several exhibitions. Teaching at Universidad Europea de Madrid since 2006. Academic Coordinator 2008-2011, Manager of international programs 2011-2014, and International Academic Coordinator from 2014 to present at Universidad Europea de Madrid				X					X																																		
Victoria Acebo	Associate professor. Principal of Acebo x Alonso office. Winner of the National Young Architecture Prize at the 9th Spanish Architecture Biennial and shortlisted for the Mies Van der Rohe Award in 2000 and 2008. Their work has been exhibited at Tokyo Design Week 2007, the Shanghai Urban Planning Exhibition Center 2008, MoMA New York 2006 and the 8th and 10th Venice Biennales.																																										X
Xavier Aguilo	Assoc prof. Bs Engineer 1999, starts his collaboration with BOMAINPASA Barcelona as structural consultant, becoming associate in 2001. Since September 2007 he is the Director of the branch in Madrid. He currently teaches Structures in the School of Architecture in the European University of Madrid. He is also a structural consultant in the Design Studio subject.																																						X				
José Agulló	Assoc prof. Structural Consultant with its own firm (gv408 structural consultancy) and more than 700 works done during 15 years. Expert on structural BIM and timber. Registered architect in COAM. 10 years teacher experience on Structural Mechanics												X															X									X						
Angel José Alonso	Associate professor. Principal of Acebo x Alonso office. Winner of the National Young Architecture Prize at the 9th Spanish Architecture Biennial and shortlisted for the Mies Van der Rohe Award in 2000 and 2008. Their work has been exhibited at Tokyo Design Week 2007, the Shanghai Urban Planning Exhibition Center 2008, MoMA New York 2006 and the 8th and 10th Venice Biennales.																																										X
Luis Alvarez	Assist prof. C.O.A.M. Registered Architect. Proffesor of Construction Technologies. Teaching since 2005 in different universities in Spain and the USA. Principal at ABM Arquitectos. He obtained his DEA Researcher Diploma in 2008 and is currently a PhD. Candidate. His main researches are related to construction technologies and the retro-future in architecture.																											X									X						
Pedro Pablo Arroyo	Assoc prof .Academic director of Architecture, Building Engineering and Civil Engineering at the Universidad Europea de Madrid, Spain. Founding Partner and Design Director of CA-DESIGN Architecture and Engineering, Shanghai, China. Architect, engineer and urban planner. PhD in Architecture by The Polytechnics University of Madrid, Spain, and a PhD in Engineering by The University of Tokyo, Japan. Post-Doctorate Researcher in Science & Technology for the European Commission. Visiting Researcher at the National University of Cordoba, Argentina, and the University College London, Great Britain. He has lectured and taught a number of Architecture workshops in Italy, Germany, Thailand, Korea, Japan and China. Frequent collaborator of prestigious international architecture publications. Awarded works: the Pucang Bridge in Qingpu and the Xidayinggang Twin Bridge in Qingpu.																																											X
Carlos Arroyo	Assoc prof. Linguist (IoLET London 1990), architect and urbanist. He investigate with a special emphasis on sustainable development and research into new housing types. He has received international awards such as EUROPAN (2001), the EMVS Prize for Residential Innovation and Sustainability (2006), and two Open Oproep in Belgium (2007 and 2008).																																											X
Felipe Asenjo	Assoc prof. 2008.Architect, Universidad Europea de Madrid. 1996. Arquitecto técnico (Building engineer), Universidad Politécnica de Madrid. In ESNE-Camilo Jose Cela University, he taught courses in different areas and worked as academic coordinator. Currently, Asenjo is professor at the Department of Projects and Representation of Architecture and Academic Coordinator of the School of Architecture. He worked in the development of CLEMENTE REDONDO and RUIZ CHÉRCOLES team's projects', Project Management and the execution of Building Works. He collaborated with HERNANZ-DIAZ (housing); OCHOA RODRIGUEZ MIÑÓN (industrial buildings), and ALAE										X				X					X																								
Francisco Javier Avilés	Assist prof. Registered architect and principal of A2Z Architecture | J.M.G. 97 S.L., firm specialized in residential, commercial and hotel architecture. Expert in energy efficiency, legal architecture and building technology. Extensive bi-lingual teaching experience in the construction and building services areas, in both the Architecture and Building Construction Engineering degrees.											X									X																							
Camila Aybar	Associate professor. Principal of Aybar.Mateos Arquitectos. Most recent recognitions include a distinction prize from Madrid Architects Association (COAM), Finalist at Hyspalit Prize and selected for Arquia proxima 2010, a selection of the most promising young offices in Spain.																									X	X				X	X				X			X				

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Ñiurka Barrios	Assoiate professor. Expert in Sciences, Mathematics and Physics						X																																						
Rogelio Barrios	Assoc prof. Metallurgical Researches Center at La Havana, Cuba. He has been developed neuronal networks to select composite materials based on aluminum. Then he moved to Spain and he got his M.Sc. in Mechanical Engineer. He has been designed dynamic system simulations to different applications. Currently he is a Professor at Department of Sciences and Aerospace Engineering at Polytechnic School at *Universidad Europea*.						X																																				
Santiago Becerra	Assoc prof. M. Arch. on Advanced Architecture at ETSAM, specialty on Theory and Critics. Registered Architect at COAM and Co-founder partner of MUTE architecture practice from 2007 to present. Awarded in several international competitions. Associate Professor of Building Construction at Universidad Europea de Madrid (UEM) 2009 to Present.																										X					X												
Eduardo Belzunce	Associate professor. He won the Europan 4 International Prize for Young Architects.																																											X
Juan Manuel Blanco	Assoc prof. Industrial Engineer, Polytechnic University of Madrid, Spain. I work on Department of Building Technology, Faculty of Architecture, European University of Madrid, Spain since 2008 and my own Engineering and Consulting Bureau, ADDE Ingenieros. I have my own Installation Enterprise, EDMA Montajes Industriales e Instalaciones, S.L.																				X																							
David Casino	Assistant professor. Graduated in architecture and Master in Advanced Architectural Design. Founding partner of ZIGZAG architecture studio. Their work has been recognized with the Architecture Award 11th Spanish Architecture and Urbanism Biennial and other prizes among which are: AR+d Awards for Emerging Architecture and Ugo Rivolta European Architecture Awards 2011.																																											X
Jorge Conde	Assoc prof. Founding Principal of IDEEE, Structural Engineering. Registered architect. Extensive practical experience in Structural Design. Master Degree in Finite Element & Numerical Methods. Associated Teacher in UPM and UEM. 14 years teaching structures in different universities, both in spanish and english												X				X											X																
David Cortés	Asso prof. Bachelor´s Degree in History of Art. Independent curator. He has published numerous books and articles on art, classical music and visual culture.													X															X					X										
Jesus Crespo	Assoc prof. Specializes in structural designing, with 14 years teaching; Registered architect and independent practitioner; extensive experience in practice with firms in España.																											X									X							
Julian de la Fuente	Assit prof. B.A. in History and a B.A. in Communication Studies. Works as an independent producer and director since 2002, he has made all kinds of audiovisual materials such as ads, reports and music clips. Designer of holographic facilities, 3D projections and interactive apps. Several publications on film and history and has conducted several outreach projects for film heritage. Teaches at Universidad Europea de Madrid since 2010.		X																																								
Aránzazu De la Peña	Assoc prof. Architect and Structural Designer. Background in Civil engineering and quality departments. Over 10 years of teaching experience. Professor at UE since 2007. COAM (Official Architects Association of Madrid), registered architect since 1994.																																				X							
Gonzalo Del Val	Assist prof. Architect since 2010, graduated with honors by Escuela de Arquitectura of Universidad Europea de Madrid and he is Master in Advanced Architectonic Projects by Escuela Técnica Superior de Arquitectura de Madrid . He is a current contributor of 'Arquitectura' magazine, the official publication of Madrid's Architect s Professional Association. Lecturer of Architectural Projects at Universidad Europea de Madrid.															X					X																							X
Francisco Domouso	Manager of architecture program at UEM since 2011. Architect/Urban Design professional since 1994. Over 15 years of teaching experience. Awarded in more than 15 national and international Architectural and Civil Engineering Competitions. More than 30 Publications in professional and specialized magazines in Architecture. Registered architect: Madrid Architects Association (COAM)																																									X		
Enrique Encabo	Assoc prof. Registered architect (Madrid, ETSAM, UPM, 2002); extensive experience as writing critic and curatorship specialized in communication projects within the field of contemporary architecture. Assistant curator of the Spanish Pavilion at the Venice Biennale 2012 and deputy curator & historical research of the Spanish Pavilion at the Venice Biennale 2014. Received the COAM Award (2008) as well as the 1st Prize in the VIII Latin-American Biennial (2012).																																								X			
Silvio Escolano	Assoc prof. Registered architect. Extensive practical experience in Structural Design. Master Degree in Structures. 6 years teaching structures																																					X							
Inmaculada Esteban	Associate professor. Principal of Q! estudio, a cultural management office specialized in communication projects. Frequent contributors to specialized journals like Arquitectura Viva, Baumeister, Pasajes de Arquitectura y Urbanismo. Experto n graphic communication.															X					X																							X

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Francisco Javier Espejo	Assoc prof. Ph. D. in illumination about architectural heritage; master in architectural restoration; extensive teaching experience as university professor since 1998; participant in european and national researching projects about architecture and illumination																					X																								
Eduardo Espinosa	Asso prof. Specialized in urban planning and urban design issues, with extensive experience in both teaching and professional practice. Founding partner of Cotacero, urban issues & architecture consultants. Diverse research experience, lately focused - for the ongoing PhD thesis works- on social use of public space and its relationships with the built environment. Member of Madrid Official Architects Association.																		X																X										
Fernando Espuelas	Professor. Registered architect 1978, PhD 1990. Dean of the School of Architecture at UEM 2003-2006. Graduation project coordinator 2007-2011. Coordinator of PhD program since 2010 to present. Researcher, expertise in material/time and hermeneutics in architecture. Published books: El claro en el bosque, reflexiones sobre el vacío en arquitectura /// Madre Materia. Professional experience in public buildings. Design studio professor since 2001.																																		X				X						
Jose Luís Esteban Penelas	Chair/Full professor. PhD Architect. Chaired Professor at School of Architecture UEM. Director of the Air Lab Cities Institute. Main Researcher. Principal of the office Penelas Architects., a creative office-infrastructure of Architecture and Urbanism. His projects and works have been internationally published; having received more than fifty awards, and exhibited in numerous countries.																																												X
Angel Luís Fernández	Chair/Full Professor. PH.D. Architect by the Madrid Polytechnic University School of Architecture. Professor of Architectural Design at the School of Art & Architecture, European University of Madrid. Tenured Professor of Architectural Design at the Valladolid School of Architecture. Professor of Art History at the Madrid Polytechnic University School of Architecture. Beyond his professional activity he has been, among other positions, Dean of the School of Art & Architecture at the European University of Madrid 1998-2003 and General Director of the City Centre Office at the Madrid City Council. Member of the Madrid Official Order of Architects. Council Member of the International Centre for the Heritage Preservation Foundation																								X							X				X				X						
Lorenzo Fernandez-Ordoñez	Assoc prof. Architecture Diploma at Polytechnic University of Madrid (UPM). Building Eng. Diploma at University of Madrid (UEM). 2000-2003. Landscape Lecturer at UA (Alicante University) Since 200. Construction Lecturer at UEM. Member of the Jury for the Final Degree Project. Professional activity 1992-1997 Architect, Urban Planning IDEAM, Spain 1997-2000. Partner of ESTUDIO GUADIANA SLP (Madrid Spain).																																X												
Uriel Fogué	Assoc prof. Registered architect. Independent practitioner (principal at elii), and researcher (co-deirector of the research team [inter]section, and co-editor of the magazine UHF). Currently develops several architecture and urban works and researches. Awarded with the prestigious FAD prize (2005), the Distinction of the Official College of Architects (2006, 2012, 2013), and the JUSTMAD Emergent Creativity prize (2013).															X					X					X																		
Alberto Galindo	Assoc prof. PhD Architect. Associate professor. He is expert on graphic communication and industrial design. Registered architect. 10 years prof experience.					X					X				X					X																					X				
Alvaro Galmés	Assoc prof. Expert in technology construction and professional ethics of the architecture. Member of the Architect's Association of Madrid –COAM. Professional experience centered on residential architecture not only collective (constructing several promotions of high-rise housing, in row houses, semi-detached houses, and in closed block)as well as single-family homes. Research work focus on the study of the housing, reflected in numerous articles, assistance to different national and international conferences, on a PhD thesis on «to dwell» and in the participation on diverse research groups on these topics.							x																															X						
Camilo Garcia Barona	Assoc prof. Expert in architectural design																																														X
Diego García Cuevas	Assit prof. M.Arch in Biodigital Architecture.Co-founder of Controlmad FabLab Madrid. Expert in digital fabrication.					X				X	X																																		
Gonzalo García Muñoz	Lecturer. Founder of the L3S Bureau of architecture. Co-founder and CEO of Soft SA, author and owner of Presto, application software for Construction Costs Analisys and Management.																						X																						
José María García-Pablos Ripoll	Assoc prof. Registered architect COAMadrid/1969. Recognized in the Urban Design how National Awards in Urban Planning Spain by Master Plans of Madrid(1983) and Fuenlabrada((2005). UEM Professor since 1999, Member of the Research Groups "MeditUrban" and "Aranjuez Old Town Planning".																								X							X												

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Juan Carlos Gª Perrote	Professor. Architect (UPM, 1979); Ph.D (UEM, 2003); Associate Professor UPM (1979-1996) and UEM (1996-2004); Professor UEM (since 2004). UEM: Head of Department (1996-2003), Academic Coordinator (2003-2006), Dean of the School of Fine Arts and Architecture (2006-2009), Maneger of Architecture program in Madrid (2010) and Valencia (2010-11). Conducted several publications. Freelance professional with dedication to territorial and town-planning related fields, Urban Planning Award of the Madrid City Hall for the PVF (1989) and the PRET (1995). Has also dedicated to construction, restoration and renovation works, and obtained the Royal Foundation of Toledo Restoration Award for the Iglesia de Santas Justa y Rufina (1993) and for the Nobility Records in Hospital de Tavera (1995).				X			X																X																						
Jose Angel Gil	Assist prof. Registered architect. Expert in Structures. 18 years of professional experience																																				X									
Pablo Gil	Assistant professor. March at the Bartlett School of Architecture. Expert in new programming language, digital fabrication and he investigate on Composites at Instituto de automática y robótica CSIC.																																									X			
Miguel Gómez Navarro	Dean, School of Architecture at Universidad Europea de Madrid, since 2009 to present, Manager of the Architecture program 2008-2009. Civil Engineer. ETS of Road, Canal and Port Engineer. UPM, PhD Doctor sciences techniques. PFS of Lausana, Switzerland. 2001-2009 Chief technical of MC2 (engineer company).																																												X
Edgar González	Assoc prof. Expert on graphic and media communication														X					X					X																					
Carmen Glez Gasca	Professor. Head of the department of technology at UEM 2011-2014 Ph. D in Material Engineering. Fifteen years of experience in teaching and academic management. Lecturer of Engineering Projects and Material building's subjects. Researcher at CSIC. Author of several scientific publications, and Member of Spanish Association of Mining Engineers.											X																																		
Francisco J. González	Assoc prof. Master of Advanced Studies (Diploma de Estudios Avanzados, DEA), Polytechnic University of Madrid B, Sc, Architect, School of Architecture Polytechnic University of Madrid. Professor at the Science, Urbanism an History Department, School of Architecture , UEM, 1998-2014, Urban Area Coordinator and professor at MEEREM UEM 2009-2012: Headmanagment Post-grade Course Building and Sustainability UEM. 2005-2006.Director of Architecture Degree Area. 2002-2004. Graphic Expression Professor at ECAM.(Escuela de Cine y Audiovisuales de Madrid). Production Design speciality.1998-2008. Prof experience: Economic Activities Implementation Studies in Madrid City Masterplan 2012, Urban Regeneration and Housing Act, for Alcorcón City; 2012Masterplan Albacete City Coordinator,2008-2011																		X																X							X				
Natalia Glez Pericot	Assoc prof. Building Engineer, LEED AP BD+ C and BREEAM ES Assesor. Owner of DEO PLUS, S.L.P., specialized on environmental and sustainability consultancy, project and construction management. Registered at the Building Engineering School of Madrid. PhD fellow, research on the field of waste management. Faculty at the Architecture degree, Building Engineering degree and Project Management master, basically for Environmental Management and Business Management related subjects.																						X																						
Sally Gutiérrez	Assoc prof. Internationally recognised visual artist and award winning documentary film maker. Member of *Peninsul* a research group, Reina Sofia Museum and *Decolonzing Art & Aesthetics* research group, Matadero Cultural Centre Madrid / Goldsmith University. Professional with 12 years of teaching experience, taught at the Media Studies and at the Cultural Studies dept, New School University, New York. PhD Candidate at Complutense University, Madrid Fine Arts Faculty.			X										X																															
Silvia Herrero	Assoc prof. Architect / urban design professional. 11 years teaching experience in Urban Department UE. Academic Coordinator in the School of Architecture and Engineering. Several Research fellowships. Contributions to urbanistic Publications.								X															X																					
Jesús Hierro	Assoc prof. 18 years teacher experience on Structural Mechanics and Analysis. Structural Consultant with its own firm ("JHS Proyecto de Estructuras") working for several private and public institutions. Founding Partner of the "Structural Independent Consultants Association ACIES"																												X		X														
Eva Hurtado	Professor. PhD Architect. Professor at the Architectural Projects Department and a guest teacher in London, Copenhagen, Krakow and Lima. He has participated in the restoration of the Monastery of Carracedo an the restoration of the Basilica di Palladio in Vicenza. She has researched the dissemination of architecture, historical avant-gardes and housing, and is currently researching habitability and co-operation.																																								X				X
Carlos Irrisarri	Assoc prof. Registered and practicing architect, expert in real estate processes and valuation. Extensive teaching experience as professor and researcher in Architect's Profession (history, law, ethics) as well as History of Art and Architecture. Author of books, papers and articles																																						X					

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Lourdes Jimenez	Assoc prof. Architect and has a Master degree in Restauration of historic gardens and landscapes. Registered Architect since 1995. Partner at ALJEZ ARQUITECTURA Office, working in the fields of architecture, town planning and landscape architecture since 1996. Memberships of the UNESCO Work Group Best Practices for the improvement of life conditions.								X										X					X	X										X									
Jose Jurado	Associate professor, diplomaed postgraduate studies, extensive construction and integrated design teaching for 18 years, numerous technical articles in architectural publications, practicing architect.																													X			X			X							
Concha Lapayese	Asso prof. PhD Architect. MASTER at Stadelschule de Frankfurt am Main. Principal of Gazapo-Lapayese Architcts. She is expert on building restoration and landscape. Her work has bees exhibited at the Bienal de Venecia, "NEXT", Solitude Academie Stutgart , Bartlett School Londres, Colegio Oficial de Arquitectos de Madrid. C.O.A.M. and in the Universidad of Yale.															X					X																							
Miguel Lasso de la Vega	Professor. Ph.D. Architect. Director of the Department of Science, History and Planning. Professor of History of Architecture. Specialist cataloging and protection of architectural heritage. Many books and articles about these matters. His last book was *Palaces of Madrid* (2010) as scientific coordinator and author. Ex-coordinator of Historical Archive of the Official Association of Architects of Madrid (COAM). Registered architect COAM																												X															
Jose Manuel López	Assoc prof. Ph.D.ten years teaching mathematics and physics to architecture and engineering students. Published a dozen papers on colloid physics.	X					X																																					
Ramon López Neira	Assist prof. Expert on construction and technology							X																																						
Ana Luengo	Assoc prof. PhD MSc LA, President of the European Region of the International Federation of Landscape Architects, member of IFLA. Lecturer and invited guest at various universities, both in Spain and abroad; author of many publications in Spanish, French, English and Italian; specialised, as member of ICOMOS and the ICOMOS-IFLA Cultural Landscapes International Scientific Committee, in *World Heritage Cultural Landscapes,* her latest publication with the World Heritage Centre (UNESCO). She also runs her private practice, whose projects have been granted international awards in France, Belgium, Italy, Spain, etc.																												X			X										X	
Miguel Luengo	Asso prof. Registered architect and independent practitioner with international Works from Madrid to Arabia; extensive experience also as Theory of architecture's international lecturer in Europe, Middle-East and Asia.			X										X												X				X				X								
Mª Paz Martín	Associate professor. Cofounder of the studio FÜNDC, selected in 2003 by Herzog & de Meuron and the Chinese artist Ai Wei Wei as the best young Dutch studio in the international selection of firms for the creation of the Architecture Park in Jinhua (China). In 2006 FÜNDC won the Gold Medal in the 8th Architecture Triennial at Belgrade.															X					X						X				X					X				X			X
Alberto Martínez Castillo	PhD Associate professor. Principal of Matos&Castillo office. He has obtained many prizes in several competitions of Architecture: Europan II, Euskadi Technology Museum, Casino de la Reina Park, Son Servera Market and Music School, and various public housing project competitions. He has won various prizes for built work, including the 1993 Andrea Palladio Prize and the Prize of the 2nd Show of Young Spanish Architects in 1992.															X					X						X				X					X				X			X
Juanjo Mateos	Associate professor. Principal of Aybar.Mateos Arquitectos. Most recent recognitions include a distinction prize from Madrid Architects Association (COAM), Finalist at Hyspalit Prize and selected for Arquia proxima 2010, a selection of the most promising young offices in Spain.															X					X						X				X					X				X			X
Beatriz Matos	Assoc prof. Design studio Teacher with 25 years of academic experience. Architectural and Urban Designer with 29 years experience. PhD sudies done, preparing the Thesis defense on 2015. Registered architect by COAM since 1986		X													X					X						X				X					X				X			X
Nieves Mestre	Assoc prof. PhD Dipl. Architect, Research on Energy Efficiency and Ecology concerns of Architecture. She has taught in different universities , as UPM (ES), Syracuse University (US), UNOTT (UK), TU Delft (NL), FADU (AR), Cornell (US), University of California (US), and Architectural Association (UK). Registered Architect, her work has obtained significant prizes in public competitions as IVIMA Public Housing 2007(ES), Parco Della Memoria 2007 (IT) and Europan 8, 2006 (IT). She has taken part in different research groups as EDUCATE (Environmental Design in University Curricula and Architectural Training), member of Technical Committees as JIU, CONAMA, 11º Congress on Environment and recently shorlisted as Expert in Horizon 2020 European Research call.																												X															
Nestor Montenegro	Associate professor at School of Architecture UEM and Director of the Tricontinental Masters Degree in Integrated Architectural Projects. He formed dosmasunoarquitectos in 2003 and is currently Principal of Extudio. His work have been presented in the XI Biennale di Arquitectura di Venezia, JAE Exhibition in Columbia, the Bienal Iberoamericana de Arquitectura, the Moscow Biennale, the Sao Paulo Biennale.																																											X

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Susana Moreno	Professor. PhD degree on Architecture (UPM 2004). Head of Efficient Building and Energy and Environmental Refurbishment Master's Degree, since 2009.. She has been Head of Technology Department of UEM between 2007 and 2009. Researcher in several Public and Private Financed Research Projects in the areas of sustainability. COAM register architect (Madrid Professional Architects Association) since 1991 and ASA member (Architectural Sustainability Association) since 2010																										X															X					
Victor Navarro	Associate professor. He founded the office Langarita – Navarro Arquitectos. Their work was selected for the 11th Biennial of Spanish Architecture (2011), the Maxxi/MOMA Young Architects Program (2011), the XI Biennale di Arquitectura di Venezia (Venice, 2008), 44 International Young Architects (2008).															X					X															X				X							
Fuensanta Nieto	Assoc prof. She studied at Columbia University in New York. She is founding partner of Nieto Sobejano Arquitectos with offices in Madrid and Berlin, exhibited at the Biennale di Venezia; at the MoMA New York; and at the Kunsthaus in Graz. They are the recipients of the National Prize for Restoration and the Nike Prize issued by the Bund Deutscher Architekten (BDA), as well as the Aga Khan Award.																																			X				X							
Liliana Obal	Assoc prof. Member of the Official Architects Association of Madrid (COAM), registered architect Nº 10.006. Architect and Urban design professional. Awards: National Architecture Award 2006, Housing (2009); COAM Award, editions 2003, 2008, 2012; COAG Awards, editions 2012, 2013; Madrid City Town Hall Awards, editions 2002, 2007. Selected in Spanish Architecture Biennale, editions 2003, 2007. 1984-87. School of Architecture. Buenos Aires University (FADU). Argentina/ Architectural Design Workshop. 2005-14. School of Architecture. Universidad Europea de Madrid (UEM). Spain/ Theory and History of Architecture and Art.		X	X										X											X					X																	
Fernando Otero	Assoc prof. Architect of the urban planning department of Madrid city hall. Associate professor. Espert on urbanism and city planning																		X																X												
Nieves Plaza	Assoc prof. Architect ETSAM 1997, member of COAM since 1998, co-founder of PEZ ARQUITECTOS in 2003 together with her colleagues from college and combinig since 2001 private assingments with teaching in different public and private institutions (Universidad de Alcalá de Henares, IED, Universidad Pontificia de Salamanca and Universidad Europea de Madrid).																X					X								X																	
Andrés Perea	Lecturer. Founder member of Asociación Sostenibilidad y Arquitectura (ASA). He has received the first prize in the Capital Plaza competition in Taipei (Taiwan) and winner of the competition for the new Multifunctional Administrative City of South Korea. Guest professor and lecturer (Pavia, Barcelona, Madrid, Pamplona, Granada, Rome, London, Chicago, Buenos Aires, Bogotá, Medellín, Berlin, Seoul, São Paulo, Manila, etc.).																									X					X																
Fernando Porras	Assoc prof. Founding Principal of Porras La Casta arquitectos licensed firm since 1988. Recognised company in the design of large urban scale projects, as Madrid Río Project, awarded recently by the Chicago Athaeneum and the international association Foment de les Arts i del Disseny.																		X																X												
Mateus Porto	Assoc prof. Degree in Architecture and Urban Planning - *Universidade de Brasíllia, UnB* (2003) and Diploma of Advanced Studies in Peripheries, Sustainability and Urban Vitality - Department of Urban Planning, *ETSAM. UPM, Madrid* (2008). Lecturer at the *Universidad Europea de Madrid* (since 2008) and consultant on Sustainable Urban Mobility (since 2005).								X										X					X											X												
Raul Recuero Samboal	Assoc prof.specialist in Structures. 14 years teacher experience on Structural Mechanics and Analysis.																	X																													
Esther Redondo	Assoc prof. Ph.D, specialist in Construction History. Publications in these field. 14 years teacher experience on Structural Mechanics and Analysis.. Structural Consultant with its own firm (gv408 structural consultancy) and more than 700 works done during 15 years												X					X																													
Fernando Rio Duran	Assoc prof.specialist in Construction. Expertise in industrialization processes																																												X		
Rosa Mª Rodríguez	Professor of Applied Physics and Dance, since 1998. Vice-president of Spanish Association of Dance Movement Therapy, 2013- present. Vice-president of Spanish Meteorological Association (2001-2004). Councillor of European Meteorological Society (2003). Research fields:	X																																													
Sergio Rodríguez	Assist prof. Industrial Engineer. Registered Engineer nº13818 COIIM. Expertise on Building Services, HVAC, Mechanical and Electrical installations.. 2007-2008 - Assistant professor in Francisco de Vitoria University. School of Architecture. 2008-Present -Assistant professor at Universidad Europea de Madrid. School of architecture. Work experience:2003-Present. Mechanical and electrical engineer in R. Urculo Ing consulting																X																														

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Oscar Rueda	Assist prof. PhD Architect. Head of the Department of Architectural Design and Graphic Expression. His PhD work has received recently the first prize in the national competition Arquia. Principal at the office Rueda Pizarro Architects SLP. National Prize of Housing in 2006, First Price in IV Architecture Biennale of Iberoamerica 2004.																																								X				X
Javier San Juan Calle	Assoc prof. Founding member of MTM arquitectos , working as associates with Javier Fresneda since 1997. Qualifications: Superior Architect. Madrid Polytechnic University (Spain) 1992. Specialist in urban planning . Associate Professor of Architectural Design at the European University of Madrid since 2006. Recently, his work has been showed en the Spanish architecture exhibition: On Site. New Architecture in Spain.																																								X				X
Mara Sánchez	Assoc prof. PhD Archietct. Expert on architectural design. Expertise in contemporary art.																															X														
Angel Verdasco	Assoc prof. PhD Architect. Associate professor. Principal of Angel Verdasco Arquitectos.S.L.P. His work have been presented in the XI Biennale di Arquitectura di Venezia. He is expert on landscape.																																								X				X

Resume for each faculty member, full-time and adjunct who taught in the program during the previous two academic years prior to the preparation of the APR

See Part IV. Section 2. For a resume for each faculty member who taught in the program.

Description of the institution's policies and procedures relative to EEO/AA for faculty, staff, and students.

- Faculty: The School follows all policies and procedures of Universidad Europea de Madrid. The staff and faculty procedures are in UEM's intranet-*portal-uem* (they can be seen only by staff and faculty, by entering a username and ID code) and the student procedures are public (they can be seen on the web):

  UEM faculty handbook

  https://portal.uem.es/portal/page/portal/INTRANET/archivos_generales/GUIA%20DEL%20PROFESOR%20UEM%202012-2013.pdf

  Faculty career plan

  https://portal.uem.es/portal/page/portal/RRHH/Plan%20de%20Carrera%20Docente

  UEM staff ethical code

  https://portal.uem.es/portal/page/portal/RRHH/C%F3digo%20de%20%C9tica%20y%20Conducta%20de%20Laureate

- Staff: **UEM staff ethical code**

  https://portal.uem.es/portal/page/portal/RRHH/C%F3digo%20de%20%C9tica%20y%20Conducta%20de%20Laureate

- Students: **UEM Student Statute**

  http://www.uem.es/myfiles/pageposts/estatuto_estudiante_uem.pdf

  Academic and Disciplinary regulations

  http://www.uem.es/myfiles/pageposts/reglamento_academico_disciplinario.pdf

The faculty's policy is as follows:

The fundamental mission of the faculty is to develop and implement the curricula of the undergraduate, graduate and PhD programs, promoting the holistic learning process of the student, with the aim of training the professionals of the future in accordance with the educational model of the University. In addition, UE faculty must be committed to creating knowledge within the framework of the strategic academic areas of the University and to transmitting their teaching activity to provide our students with the maximum benefit during their learning process. Furthermore, some faculty members have to undertake academic management activities that are essential for the construction of a leading University. As a result, the tasks that define the activity of a UE professor relate to the following duties:

- Tuition
- Research
- Academic Management

Before we look in detail at the duties inherent in each one of the aspects of the tasks undertaken by a faculty member, it is useful to understand how the academic staff at UE carries out these duties. As a result, the competences associated with the profile of Universidad Europea faculty are as follows:

- Student guidance
- Planning and organization
- Innovation
- Teamwork
- Flexibility
- International openings
- Knowledge development
- Lifelong learning
- Commitment to the UE educational model

By way of example, here is a list of the typical activities of each duty.

Tuition involves the professor's dedication to developing the talent of their students and includes, at least, the following activities:

- Planning and coordinating academic activities
- Preparing programs
- Preparing academic material
- Developing educational activities
- Using Campus Virtual and incorporating technologies into the tuition process
- Designing, developing and supervising integrated learning tasks
- Directing graduation projects, Master's theses and dissertations
- Providing guidance and supervision to students within the framework of their courses/degree program
- Personal advising sessions with students

- Lifelong learning within their academic area of specialization and in teaching techniques
- Educational Innovation
- Extracurricular Activities

This section includes so-called tuition management, in other words, the combination of activities carried out in parallel to and inherent in the task of tuition itself. These include:

- Departmental and/or faculty meetings
- Publication of grades, signing competency tests, etc.
- Involvement in Quality Processes
- Management of teaching, technological, bibliographic resources, etc.
- Support for the academic activity of the Faculty
- Development of the International Perspective
- Coordination of courses / degree programs / curricula

Research constitutes an essential activity within the University and therefore UE aims to stimulate its research activity by improving its quality and prestige by focusing its efforts on carrying out rigorous and quality research activity in those academic areas that are relevant for society. The research outcome is applied so as to contribute to the progress of society. To achieve this, teams need to be internally organized to join forces, create synergies and set up groups with a sound basis having a sufficient critical mass of researchers capable of dealing with and successfully managing important projects that serve to correctly position us as a benchmark in the worlds of science and research.

Going beyond this association between the research abilities and interests of the faculty and the priority lines of research of the Schools, one of the key activities undertaken to achieve the proposed objectives as regards research at UE comprises the cross-disciplinary research activity carried out at the so-called Centers of Excellence for Research that form part of the School of Doctoral Studies and Research. These are geared towards a small number of fields of knowledge that aim to enhance the research activity of our faculty. These are Educational Innovation; Health and Life Sciences; Sports Science; Intelligent Systems and Renewable Energy Sources; and Values and the Global Society.

As regards the teams of researchers, the following internal structure is established in relation to the different levels of experience and dedication:

- The 'Researcher of reference' will be a renowned, prestigious external researcher who will carry out the duties of assessor, supervisor and guide for the researchers at each Center of Excellence. As such, they will guarantee that the research undertaken by the different groups under each line is proceeding in the right direction and carried out in accordance with the principles of rigor and quality demanded by UE.

- The 'Senior Researchers' will be researchers that have demonstrated a consolidated research career by heading up a research team, running international research projects, generating resources for research, being productive as regards the publication of articles in journals with a high impact ranking, directing theses and receiving research awards.

- The 'Research Professors' will form part of the research teams and include individuals that have headed up internal research lines (at least as lead researchers for internal projects) that have been published in journals specializing in the scientific dissemination of their area of knowledge. They will also have taken part in external projects and have achieved research outcomes of interest to their particular Schools.

In accordance with this approach, the professors that meet the minimum requirements for the scientific production and research activity established for each category and that, in addition have achieved a

specific grade, calculated via an assessment tool that has been designed for the purpose, may have time available to carry out specific projects geared towards updating and reinforcing their scientific production in addition to their research and academic training. This will release them in part from carrying out other duties.

The Research duty encompasses a high number of activities relating to the discovery and the integration of knowledge, in addition to the preparation, dissemination and transfer of its outcomes. Included among the key duties that define this area are:

- Undertaking tasks that generate knowledge, development and innovation
- Scientific production and dissemination: publication of books and articles in national and international journals; developing patents.
- Organization and/or participation in scientific exchange forums
- Management of R&D+i projects
- Supervision of dissertations
- Acting as experts on external committees and for the media
- Establishing international research networks
- Leadership of research groups
- Scientific dissemination via general interest media.

This section also includes "Research Management" activities, in other words, those tasks that enable the research activity to go ahead: preparing applications for subsidies, filling out forms, meetings with businesses or institutions, coordination meetings with researchers, etc.

Academic Management is essential for guaranteeing the correct operation and academic leadership of UE. Formally, this is a duty incumbent upon the members of the Faculty boards and other positions of academic responsibility, all of which are clearly committed to innovation and to the leadership of teams. However, to guarantee the appropriate progress of the activities regarding all the degree programs, academic areas and Departments, as well as contributing to developing individuals in the field of management, the respective academic heads will work in collaboration with some of the faculty in academic areas including:

- Coordination of courses / degree programs / curricula
- Recruitment and admissions of students
- The International Perspective
- Technologies
- Internships
- Academic Advising
- Extracurricular activities

In addition, UE professors may contribute to the growth of the University from other approaches geared towards directly influencing the leadership of our Institution, through the start-up of different initiatives. These could include:

- Organization, design and launch of degree programs.
- Organization of events, congresses, seminars, conferences...
- Launching internal initiatives at UE: quality, the environment, integration of individuals with disabilities, values of the University, competences, etc.
- Documentary management: preparing the minutes of the meetings, follow-up reports…
- Participation in promoting the degree programs and/or Schools.
- Administration inherent to the University, School, Department, etc.

The duties defined in the above section have to be integrated into the objectives that must be achieved by the professors during each academic year. To do this, the Academic Department Heads have to assume direct responsibility for establishing and supervising the objectives of each one of their professors, including both those on full-time and part-time contracts within their Departments.

The objectives established arise as a result of:

- The strategic goals of UE, of the School and of the Department.
- The abilities, interests and motivations of each professor.
- The areas for development that the Academic Department Head and the professor identify in the performance of their work.

The objectives defined for each professor fall into two categories:

Objectives of the Job Position

The “what” of the duties of the professor. The duties are grouped together according to the activities that comprise each duty:

Objectives referring to Tuition: such as tuition hours, the number of students, teaching material, renewal of material, application of teaching methodologies... Its performance can be subsequently evaluated, for example, on the basis of the faculty assessment surveys provided by the students; fulfillment of the obligatory commitment of the professor to their educational training and its transfer to the classroom; attendance of courses to update or improve their technical knowledge and its application; innovative teaching projects undertaken; communication and handling skills; follow-up and personal attention given to students; ability to transmit educational attitudes; client / patient satisfaction in the case of Clinics, etc.

Objectives relating to the research duty: for example, participation in research projects; publications in prestigious journals in specialist or scientific fields or general interest publications; dissemination of research though a presence in general interest media; publication of books; undertaking or directing Master's theses or dissertations; presentation of communications and giving speeches at congresses:

Management Objectives: related to the launch of projects, designing new degree programs, participation on committees and working groups at UE, optimization of resources, preparation of analysis and reports, active participation in departmental meetings, institutional activities, etc.

Skills Objectives

The "how" of their performance: leadership, teamwork, initiative, adaptability, etc.; they will be directly related to the culture of the University and with the skills profile implicit in the UE model.

One of the fundamental purposes of this process to determine objectives is to establish and maintain clear means of communication as regards the goals of each of the professors. The standards for this type of interaction between the Academic Department Head and the professor focus on: clearly identifying and defining the objectives at the start of the academic year, with the agreement of the professor, depending on the strategic guidelines of the Department, and the individual orientation of the professor; promoting a culture of trust and support in achieving objectives and encouraging the professor to assume responsibility for their actions.

The objectives have to be both reasonably flexible and subject to review at the start, half-way through and at the end of the academic year. For this, three interviews take place during the academic period, each representing in its turn a means of maintaining constant communication with the Faculty head.

The planned schedule for these interviews is as follows:

1. Personal orientation interview between the professor and their Academic Department Head (or with the Dean of the School) at the start of the academic year, to define the objectives in detail. If these extend beyond one year, intermediate points of reference should be set up (e.g. presenting the dissertation to be read two to three years later). During this meeting, the Academic Department Head will furthermore advise the professor regarding decisions on salary increases, the reasons why this decision has been reached and, mainly, the areas identified for development over the previous academic year. In other words, this is a professional development interview. In cases where the professor joins UE once the academic year has started, the Academic Department Head will define the objectives depending on the timeframe available until the final assessment takes place for that academic period.

2. Individual follow-up meeting at six months: feedback on the progress made in achieving the objectives. Identifying achievements. Consensus regarding corrective measures.

3. Individual meeting at the end of the academic year: assessing the performance of the duties carried out by each professor. Decisions regarding salary, promotion, etc. To facilitate the management of these processes, the Human Resources Department will provide tools and models that take into account the relevant aspects for defining, following-up and assessing the objectives of the professors, in a way that simplifies the holding of each of the three interviews.

Description of other initiatives for diversity and how the program is engaged or benefits from these initiatives (see Part I, Section 1.2.)

The school's policy regarding human resource development opportunities, such as:

- *A description of the manner in which faculty members remain current in their knowledge of the changing demands of practice and licensure.* A big ratio of our faculty are registered in COAM (Madrid Architects Association) and are professionally active, so their knowledge of changes in the profession and new regulations remains current. Moreover, one of our professors, Inmaculada Esteban, is a director on the COAM governing board. This proximity helps us update our knowledge as and when these changes occur. Our Dean and our Director of Architecture maintain constant institutional contact with the COAM.

  The Dean of the School, Miguel Gómez Navarro, also participates in meetings of the Deans of the Schools of Architecture in Spain (*Conferencia de Directores de Escuelas de Arquitectura).* These meetings give us a lot of information about these changes.

  The international perspective is also quite important in this respect. Some of our best professors work abroad (Fuensanta Nieto, Carlos Arroyo, Andrés Perea, etc.) and can offer the students their expertise in relation to changes in the profession outside Spain.

  In addition, the School's International Academic Coordinator needs to know as much information as possible about changes in the profession and regulations in foreign countries, since many of our graduates need to work abroad. For this reason, we are in contact with international Boards of Architects and International Universities. The relationships with these institutions serve two purposes: to promote institutional agreements, and to know these countries´ regulations and how the profession of architect works.

- *A description of the resources (including financial) available to faculty and the extent to which faculty teaching in the program are able to take advantage of these resources.*

Sabbatical leave is available to faculty for a period of no longer than six months. Universidad Europea de Madrid sabbatical leave policy is on UEM's intranet at:
https://portal.uem.es/portal/page/portal/INTRANET/%C1rea%20Docente/Movilidad%20Profesorado

At this site there are three types of faculty mobility: Erasmus short mobility, non-Erasmus short mobility, and long mobility, which is in fact a sabbatical leave. The long mobility policy is available for a maximum of six months: The professor must be a visiting professor at an international University: his/her activity there can be as a visiting professor or as a visiting researcher. The professor receives his/her standard salary, plus €500 per month, and the University pays for the flight. Two faculty members are due to take sabbatical leave: Eva Hurtado will go to the New School of Architecture and Design in San Diego, USA, and the head of the department Miguel Lasso de la Vega will go to the University of Ruanda, Africa.

There are also short mobility scholarships for teaching/research, with €750 per professor for expenses and flights. The total amount of the long and short grants is € 12.000 in 2013-2014, plus €3,000 for the Erasmus grants.

Longer, unpaid stays are also allowed, for one year or even more.

In addition, there are 5 scholarships for learning English for one month at the University of Santa Fe, USA.

There is also a specific policy for course trips with students and faculty.

Evidence of the school's facilitation of faculty research, scholarship, and creative activities since the previous site visit; including the granting of sabbatical leaves and unpaid leaves of absence, opportunities for the acquisition of new skills and knowledge, and support of attendance at professional meetings.

Research projects

The program promotes research. We summarize the current research projects (2013-2014) after visit 2:

Name of the project	Principal investigator	Start date	Finish date	Funded by	Budget
Leisure scenarios: transformation, sustainable development and competition in real state linked to tourism industry in Spain	Angel Luis Fernández	01.01.2014	31.12.2014	UNIVERSIDAD EUROPEA	5.500,00 €
Known ledge and development of skills comparative analysis in the different adaptation courses (face to face, on line) of Bachelor´s Degree in Building Engineering	Miguel Gómez Navarro	01.01.2014	31.12.2014	UNIVERSIDAD EUROPEA	3.800,00 €
RE-ARCh. Consolitated Architectural echo-systems regeneration. Second chance for urban areas and new	Oscar Rueda	01.01.2014	01.01.2015	UNIVERSIDAD EUROPEA	4.000,00 €

strategies for cross-disciplinary projects					
Meta Eurasian Diagonal	Jose Luis Esteban Penelas	01.07.2013	01.03.2014	Shenzhen Municipal Government, Urban Planning, Land and Resources Commission of Shenzhen Municipality, Culture, Sports and Tourism Administration of Shenzhen Municipality, The Organizing Committee Office of Shenzhen "City of Design", Shenzhen Nanshan District Government, Shenzhen Media Group, Shenzhen University	5.598,17 €
3D Printing Chair	Rocco Laoglia / Oscar Liébana	31.01.2014	01.02.2017	NAOTECH SOLUTIONS	300.000€
3D BIM modelling	Oscar Liébana	01.07.2014	31.12.2014	Real Madrid	70.180€
Aranjuez historical Real state catalogue	Miguel Lasso	01.03.2014	31.12.2014	Aranjuez townhall	43.560€
Light and Architecture	Jose Luis Esteban Penelas	01.07.2014	3 years	Chair UNIVERSIDAD EUROPEA-PHILIPS	96.558€

In addition we have carried out 14 research projects before visit 2:

Internal Projects

Name of Project	Principal investigator	Start date	Finish date	Funded by	Call	UEM Budget
Research Project on water supply in at-risk populations: Renovation of 9 drinking water points in the Afar region (Ethiopia)	Enrique Castaño Perea	01/01/2010	31/12/2010	UNIVERSIDAD EUROPEA		**5,850.00**
Typological spatial development formulas. Work structures and processes	María Asunción Salgado de la Rosa	01/01/2010	31/12/2010	UNIVERSIDAD EUROPEA		**5,944.20**
Transmission of natural light and images via optical fiber integrated in the building	Susana Moreno	01/01/2010	31/12/2010	UNIVERSIDAD EUROPEA		6,000.00

External Projects

Name of project	Principal investigator	Start date	Finish date	Funded by	Call	UEM Budget
SAEMANGEUM PROJECT: a new tourist super-city of the 21st century	José Luis Esteban Penelas	31/01/2008	08/06/2008	Urban Design Institute of Korea		125,343.19
Technical studies in technology and architecture for Lledó Iluminación	Susana Moreno Soriano	27/03/2008	26/09/2009	LLEDO ILUMINACIÓN		18,646.42
Preliminary design of pavilions at Playa de Doniños, Ferrol, A Coruña	Eduardo Belzunce	25/01/2008	15/02/2008	TRAGSATEC		5,800.00
Online application for the communication and management of material damage due to execution defects that affects construction work completion or finish aspects	Susana Moreno Soriano	05/03/2008	04/03/2009	Vías y Construcciones S.A.		27,840.00
Natural lighting via optical fiber	Beatriz Inglés Gosálbez	01/10/2008	31/12/2009	OBRUM, URBANISMO Y CONSTRUCCIONES, S.L.U.		85,840.00
Advanced Meta-spaces for the 21st Century Environment	José Luis Esteban Penelas	30/11/2008	30/11/2010	TRAGSATEC		220,000.00
Study of alternative accessibility solutions, facilities and street furnishings on the esplanade (Pº de Fernando Quiñones) leading to the Castillo de San Sebastián (Cádiz)	José Luis Esteban Penelas	03/03/2009	24/03/2009	TRAGSATEC		10,440.00
Tourist information center for the 'Black Architecture' villages of Guadalajara	José Luis Esteban Penelas	09/08/2010	03/09/2010	Tragsatec		10,000.00
SUSTAINABLE RENOVATION in SPORTS FACILITIES: social, environmental and economic. OPERATION METHODOLOGY	María Jesús Fernández López	01/01/2012	31/10/2012	*Consejo Superior de Deportes* (National Sports Council)		3,300.00

Short international scholarships for outgoing professors, 2013-2104: Nestor Montenegro, Susana Moreno, Miguel Luengo, Pedro Pablo Arroyo, Jose Luis Esteban, Silvia Andrés, Carlos Irisarri, Andrés Abásolo. 2012-2013 Natalia González Pericot, Francisco Javier González, Nieves Mestre, Fernando Porras, Pedro pablo Arroyo. 2011-2012: Pedro Pablo Arroyo, Juana Canet, Miguel Luengo, Beatriz Matos, Alvaro Guinea, Carmen González Requeijo, Nieves Mestre, Carlos Irisarri.

Sabbatical leaves and unpaid leaves of absence. 2013-2104: Carlos Arroyo (Ruanda-Africa), Eva Hurtado (San Diego). 2012-2013: Miguel Luengo (Shanghai), Miguel Lasso de la Vega (Chile) Ramiro losada (San Diego). 2011-2012: (Maria Fullaondo and Ciro Marquez (5 years of unpaid leave). Sabbatical leaves: Ramiro Losada (2.5 months, San Diego), Alvaro Guinea (2 months, Shanghai),

Opportunities for the acquisition of new skills and knowledge

There are four types of training courses for acquiring new skills: Strategy, Educational, Specific, Languages. The full-time professor must complete 60 hours of training, the part-time professor who works more than 20 hours a week has to do 30 hours of training, and the part-time professor on less than 20 hours a week is obliged to receive 20 hours of training. All these courses are free of charge, some of them take place on Campus, and others are on line.

Conferences

The departments have some funds to enable professors to attend conferences. For example, some professors of drawing attended the Graphic Expression conference in Porto (Portugal) in 2012 and the conference fees (€300) were paid by the department.

Support and attendance at professional meetings: If there is a professional meeting off campus, there is sufficient flexibility to adjust a professor's schedule and substitute him/her. Generally speaking, the professors do not come to University every day, so they can combine their academic schedules with their professional commitments.

Description of the policies, procedures, and criteria for faculty appointment, promotion, and when applicable, tenure.

Universidad Europea is compliant with the provisions of the VI Spanish Collective Agreement for Private Universities, Private University Centers and Graduate Schools (Spanish Government Official Bulletin 97 of April 22, 2010) that refers to the working categories of contracted professors.

Notwithstanding the above, this program establishes an internal definition of the teaching categories for the UE faculty taking into account the objectives of the University and its idiosyncrasies, while at the same time respecting the identification of these categories by the rest of the Spanish university community.

One of the fundamental challenges of this Faculty Career Program that forms part of the professional development of the faculty is their achievement of a PhD qualification and their subsequent accreditation by the Spanish National Agency for Quality Assurance and Accreditation (ANECA) or by the corresponding independent Quality Agency as a Private University professor or Contracted PhD professor. To do this, in accordance with the accreditation standards for professors contracted under the Parliamentary Law Governing Universities 6/2001 of December 21st and developed by the Spanish National Agency for Quality Assurance and Accreditation, those responsible for each of the Centers ensure that the number of Accredited and PhD professors increases significantly.

The classification establishes the following teaching categories depending on their relationship, as steps towards the development of a full professional career within UE:

Professors with a working relationship:

Assistant Professor
Associate Professor
Professor
Research professor
Full Professor/Chair

Professors with a commercial relationship:

Professional Collaborating lecturer
Professional lecturer
Professional PhD lecturer

List of visiting lecturers and critics brought to the school since the previous site visit.

The most notable and prestigious visiting lecturers are listed below. The full list can be checked at: http://arquitectura.universidadeuropea.es/escuela/ponente&interno=1&width=1600

After NAAB visit 2:

Anne Lacaton,

Francis Keré,

Josep Llinas,

Marcos Cruz (Ex Dean of the Bartlett School, London)

Anatxu Zabalbeascoa,

Stephano Boeri,

Fernando Romero

Iñaki Abalos (ETSAM)

Bijoy Jain

Before NAAB visit 2:

Ma Yangsong (Architect, China)

Emilio Tuñón (Madrid)

Xiangning Li (University of Tongji, Shanghai)

Beatriz Colomina (Princeton University USA)

Jorge Pérez Jaramillo (UPB Medellín, Colombia)

Theo Spyropoulos (AA London)

CJ Lim (Bartlett School, London)

Enrique Sobejano (UDK Berlin)

Mikael Stepner (New School of Architecture and Design, San Diego USA)

Pachi Managado (Navarra, Spain)

Juan Carlos Sancho Osinaga (ETSAM, Madrid)

Izascun Chinchilla (ETSAM, Madrid)

Carlos Ferrater (Barcelona, Spain)

We also like to invite non architects in order to promote the multidisciplinary activity in our profession, like:

Gerard Mortier (Art Director of the Royal Opera house in Madrid)

Federico Mayor Zaragoza (ex Director of UNESCO)

Elvira Lindo (writer).

List of public exhibitions brought to the school since the previous site visit.

After visit 2:

Exhibition at *Centrocentro* (Madrid City Council), autumn 2014

Exhibition Arquitectos por el mundo at COAM, 2013.

Exhibits in the School: 5th academic year project Studio Exhibit and Graduation projects exhibits (4 per year).

Exhibition at COAM (the professional governing body of architects of Madrid), October 2013: Students´ Graduation projects

Before visit 2:

Exhibition at *Centrocentro* (Madrid City Council), July 2013

Exhibition at COAM (the professional governing body of architects of Madrid), October 2012: Students´ Graduation projects

Exhibit about Arne Jacobsen´s design work at COAM: this exhibit was designed by our students from Architecture+Art, and was in media (Spanish National TV, Antena 3 TV, El Pais Newspaper etc.). The exhibition received around 4000 visitors.

Exhibits in the School: 5th academic year project Studio Exhibit and Graduation projects exhibits (4 per year).

Biomimetic Architecture: models and prototypes exhibit at an art gallery in Madrid (Doctor Fourquet street)

Students

Description of the process by which applicants to the accredited degree program are evaluated for admission (see also the requirements in Part II. Section 3).

Admission requirements may vary depending of degree level (undergraduate or graduate) or type of admission (transfer from another university, international, etc.) and are posted on the UEM website. (See website for undergraduate admissions: http://www.uem.es/en/academic-offer/undergraduate/admissions.)

The general admission requirements include:

- Complete admissions application.
- Successfully complete entrance tests.
- Reserve a place (seat) after receiving letter of acceptance.
- Submit the official registration to the Department of Admissions.

The information included in **Appendix C16.1** provided more details process and a copy of enrollment application is attached in **Appendix C16.2**. Also, the regulations published on the University website: http://www.uem.es/myfiles/pageposts/normativa_general_ensenanzas_grado.pdf

(The website is in Spanish).

Undergraduate degree regulations

Section I: On admission of students

Art. 1.

Once students have been notified that they have been admitted to Universidad Europea de Madrid, they will be considered as such once they have carried out the corresponding admission procedures and have formalized their enrollment. To do so, they will have to provide documentary proof of having passed the University.

Entrance Exams, any other tests that enable admission into the university, qualifications and all other requirements necessary under current legislation.

Art. 2.

First year students must enroll in all those credits stipulated for their course set out in the syllabus.

Art. 3. The University reserves the right to admit or not to admit students and to not renew the annual enrollment of those students whose conduct may set a bad example for the University and for the other students. In particular:

- Any action, deed or misdemeanor that contravenes the University code of ethics

- Being charged in criminal proceedings for a fraudulent offense

- Any other conduct, deed or situation that the University considers may affect the normal learning activity of its students.

Section IV: On enrollment in credits

Art. 7.

Generally speaking, a student may enroll in a minimum of 60 and a maximum of 72 ECTS points in one academic year, based on the reference that one ECTS point is equivalent to 25 hours of study activity. This assignment of credits and the estimate of their corresponding number of hours will be understood as referring to a full/time university student for a minimum of 36 and maximum of 40 weeks in the academic year.

In extraordinary situations, a student may request to study in the summer period up to a maximum of 12 credits from among the subjects the University offers for this period.

Art. 8.

In consideration of students' special educational needs, part-time studies or others, students may enroll in a minimum of 24 ECTS points per year with authorization from the Dean of their School.

Art. 9.

Students must first enroll in the mandatory, core subjects they have pending from the previous year, and then enroll in the corresponding subjects until they are enrolled in the rest of the credits, as per the limits laid out in article 7. The student should take care to ensure that the timetables of the subjects in which he/she is enrolled do not overlap.

Art. 12.

Enrollment takes place once only for each academic year, and once it has concluded, it is only possible to make modifications within the deadlines set by the University. For these purposes, the University will set the period in which, each year, students with due cause may amend their enrollment. In exceptional circumstances and for justified reasons provided for in current legislation or for organizational reasons, the University may modify enrollment. The student will always be notified of this.

Description of student support services, including academic and personal advising, career guidance, and internship placement where applicable.

- Student Affairs This office is always open to the student and is his/her first stop for resolving queries, solving a problem, or obtaining an academic document. This Office covers all the departments (Schools, Office of the Registrar, International, enrollment, etc.) and, depending on the student's request/demand, starts a process via a footprint (a digital application) which is channeled to the appropriate role/department. This footprint process, once started, must be completed by the appropriate department and communicated to the student.

- Academic coordination. The School has two academic Coordinators who have 6 hours/day for office hours, when they attend to students and resolve a wide range of issues (schedules, tuition, enrollment, recognitions, incidents, etc.).

- Internship professor + Career and Placement Office. This team advises the students on their options for securing a current professional internship (in Spain or abroad) during the program, and also gives them advice for the future.

- Tutor. Each student has his/her own personal tutor, who is one of the professors. The tutor gives advice to the student about how to approach the degree and the future, and asks other roles (academic coordinator or program coordinator) if the questions are about the faculty or academic issues.

- International tutor. There are 6 international tutors in the School, and 5 for the Architecture program. Three of them attend to all the candidates for studying abroad, before, during and after the stay. They also give them advice about the best places to go depending on the student's profile, and advice about the process involved in going abroad. There are two international tutors for the international exchange students; these tutors are the link between these students and the directors of the School, and specialize in particular profiles (one tutor attends to all the Latin American students; the other deals with North American, Asian and European students).

University Ombudsperson
The person who defends and supports the rights of Universidad Europea de Madrid students regarding academic and administrative matters and who plays a permanent informative role for enquires submitted to them or decisions made about the operation of the university.

They are required to act in accordance with the principles of impartiality, objectivity, swiftness, rigor and courtesy. In carrying out their duties, the Ombudsperson may request information and collaboration from different areas of the university. The Ombudsperson's suggestions and proposals for change are intended to enhance the quality of Universidad Europea de Madrid.
Annually prepares a report of findings with the activities and proposed improvement actions. This report is public and is communicated through internet and intranet.
Any student can get in contact with the University Ombudsperson in different ways: (date, email, phone).

Evidence of the school's facilitation of student opportunities to participate in field trips and other off-campus activities.

The program offers different opportunities for trips, especially during our trip-week (the week before the Easter holiday), during which classes stop and the School's activity focuses on tutoring. This makes it possible to organize several trips which do not disrupt the normal development of the different courses.

For the rest of the off-campus activities (seminars, lectures, etc.), there is flexibility for promoting them if they are organized by the School. To avoid conflicts of interests in schedules, we have decided that Wednesday is the most suitable day for off-Campus activities, and therefore the schedules do not include official classes on Wednesdays.

Evidence of opportunities for students to participate in professional societies and organizations, honor societies, and other campus-wide activities.

The students have many opportunities to participate in several associations, and if they need to participate in any of their meetings, the School allows them to miss classes if they overlap:

- Professional associations: students are allowed to be pre-professional members of the COAM (Madrid Architects Association).
- Architecture Students associations: some of our student representatives are members of CREARQ, association of students of Architecture in Spain.
- Student representatives' council at Universidad Europea de Madrid. One of our student representatives participates in this committee, which has meetings with the vice rector, and he is currently the chairman of this committee.
- Spanish committee for student representatives: the same student representative is an active member of this association.

Evidence of the school's facilitation of student research, scholarship, and creative activities since the previous site visit, including research grants awarded to students in the accredited degree program, opportunities for students to work on faculty-led research, and opportunities for the acquisition of new skills and knowledge in settings outside the classroom or studio.

The scholarship program is at the link: http://www.uem.es/en/academic-offer/undergraduate/study-grants-and-subsidies . There are grants from Universidad Europea de Madrid, and grants from other institutions which are announced on our website.

Among the different options for scholarships, we have an agreement with BANCO SANTANDER, one of the most important Spanish banks. This bank offers our students one €5,000 grant and 10 €3,000 grants for studying abroad in an exchange program. This year one of our Architecture students received this grant and were able to study at UNAB University of Andrés Bello (Chile).

Other examples are the private grants for off-campus activities, managed by the School of Architecture, such as the IFAC 2013 grant (International Festival of Art and Construction) (News on the School's website) or the Arquia grant.

Therefore, Universidad Europea offers a large number of ERASMUS grants (scholarships from the European Union-EU) for studying (academic grants) or working (internship grants) abroad, providing an excellent opportunity for the acquisition of new skills and knowledge. The University receives the money from the EU and organizes the management of the payments with the Spanish Ministry. Our School currently offers 66 academic Erasmus grants and 10' internship Erasmus grants.

The program also promotes participation in creative activities, such as the AEDES workshop in Berlin or the AA London Visiting School , by adapting the schedules and by giving credits to the students (e.g. students participating in AA Visiting School get 4 credits).

In addition, the research teams are open to students, and we announce these opportunities through our person in charge of research and PhD programs, Fernando Espuelas and through the coordinators of the research teams. For example, the research program *Integrated management of regeneration of outdated urban tissues* has three students in the research team. *Medit_Urban* research team and *Gardo Ceroi* team have also three students in the teams.

Evidence of support to attend meetings of student organizations and honorary societies

If students need to participate in any meetings of student organizations, the School allows them to miss classes if they overlap.

I.2.2. Administrative Structure & Governance

Description of the administrative structure for the program, the academic unit within which it is located, and the institution

The organizational chart at Universidad Europea de Madrid starts with the managerial team and the bodies responsible for the different academic and non-academic areas, ensuring that the coordination and relationship among them results in an educational offer that meets the needs of students, the requirements for accredited institutions, and the demands of society in an on-going and systematic way. The governing bodies at Universidad Europea de Madrid are as follows:

Management Committee

This is the collegiate organization that directly reports to the President for the study, consideration and coordination of relevant issues that may affect the Business Management of the University (new structures, approval of the academic offer as proposed by the Academic Council, budget management, management of relations with job positions, etc.). This comprises the President, General Manager, Rector and VP's of Finance, Operations, Human Resources, Marketing, and Sales.

Academic Council

This is the collegiate organization that directly reports to the Rector for the study, consideration and coordination of issues relating to the Academic Management of the University (curricula relating to official and unofficial tuition offered at the University, appointment of University faculty, etc.). It comprises the Rector, General Secretary, Vice Rector of Quality and Academic Innovation, Vice Rector of Students and

Career Placement, Deans and School Administrators, Ombudsperson, Directors of Affiliated Institutions and the Director of the Advanced Career and Technical Education.

The University also has a body of advisors, the **University Advisory Council** comprising the President of the University and a team of highly regarded experts in their respective fields. This council helps Universidad Europea de Madrid further strengthen its existing ties to society and professions, which our students will become members of upon completion of their studies.

In addition, students at the University are represented by way of a **Student Government Council**. The students elect one representative per class group. Eight executive members are elected as Student Representatives to form part of the Student Government Council, which represents the students before our University Faculty. Delegate Representatives are in permanent contact with the Student Government Council and deal with students' problems, suggestions and proposals.

The organizational structure of the university's academic management team has one Vice Rector, a Director of Doctoral Studies and Research a General Secretary and the Ombudsperson.

Rector: The University's academic leader in charge of planning, implementing and continuously developing an academic model for teaching and researching aligned with market and societal needs. She represents the University in educational and social contexts and contributes to ensuring the profitable growth of the Institution.

Vice Rector of Quality and Academic Innovation: Has the mission of promoting the excellence of the University, identifying and responding to the present and future needs of society, guaranteeing continuous improvement and innovation, achieving external quality recognition that contributes to the growth of our good name at an international level, leading the change towards advanced models of teaching and learning, and remaining at the forefront of technological advancement.

The areas of performance of this Vice Rector's Office are: quality assessment and analysis, processes and procedures, certification and accreditation, technological innovation, academic innovation, innovating in the academic offer, and continuous improvement.

Director of the School of Doctoral Studies and Research: has the mission of achieving excellence in our educational model, promoting and facilitating faculty development in research, and actively contributing to social progress through the dissemination of research results and sharing of knowledge.

The areas of activity of this School are: faculty profiles, development, research, and resources for learning and research.

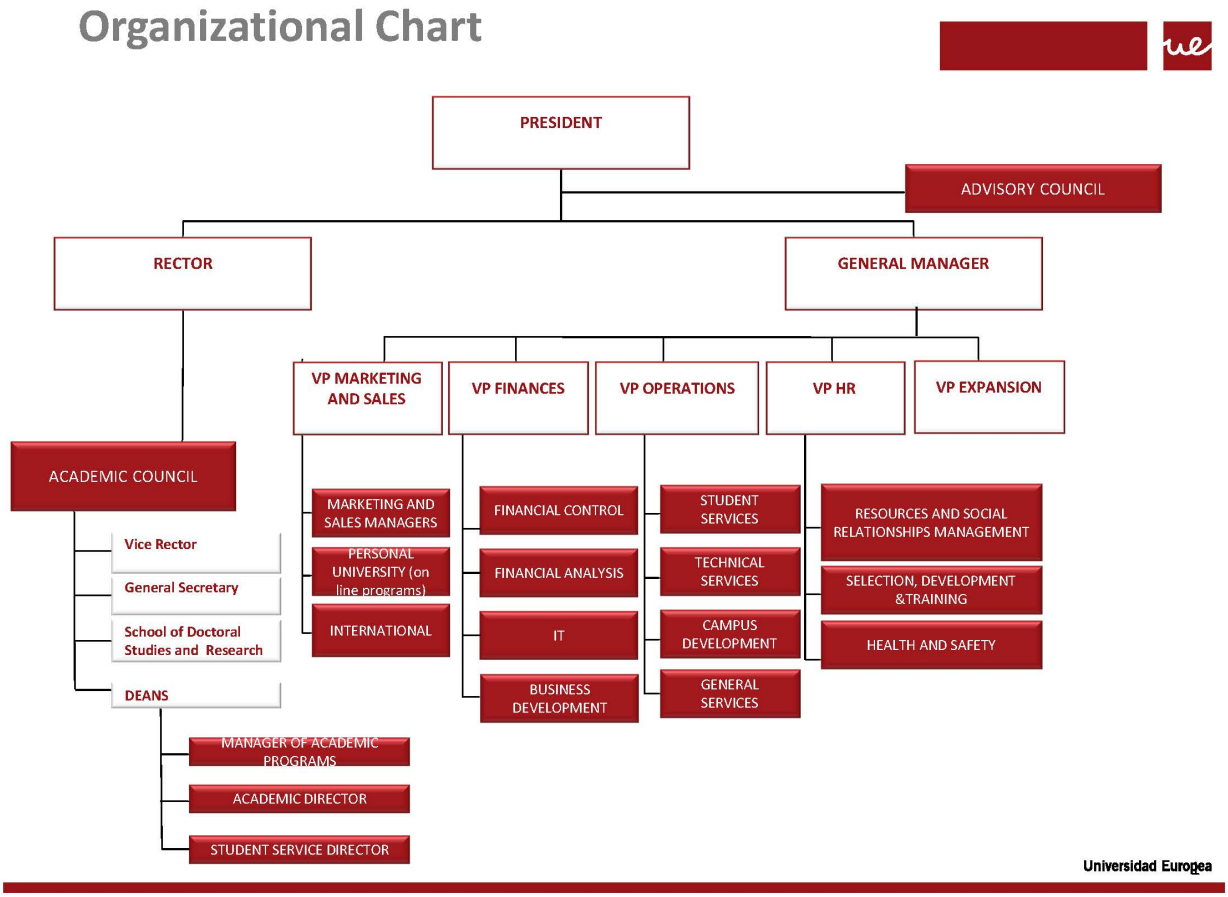
General Secretary: has the mission of guaranteeing the legal security of the University as a higher education and corporate entity that acts within a global environment, guaranteeing the legal security of new expansion projects in Spain, ensuring official registrations take place, overseeing continuous improvement in processes, and promoting institutional relations with educational authorities based on social commitment.

The areas of performance of the General Secretary are: legal advising, academic advising, institutional representation, student management processes, expansion projects, registrations, and custody.

Ombudsperson: whose mission is to supervise the constant self-assessment of the Schools and the University, by guaranteeing the rights of the students and dealing with cases which have not been resolved by the Schools or the staff departments.

To further complete the University's educational profile, there are various non-academic departments that collaborate in cross-disciplinary areas. Below is an outline of the main duties of each one of these departments:

Student Affairs, *Office of the Registrar*, *Academic Coordination*, *Career and Placement Office*, *Library*, *Quality Management Department*, *Extracurricular Activities*, *Research Support Services*, *University Sports Complex*, *UEM Language Center*, *NetUEM*.



School Board

The School Board is comprised of the following:

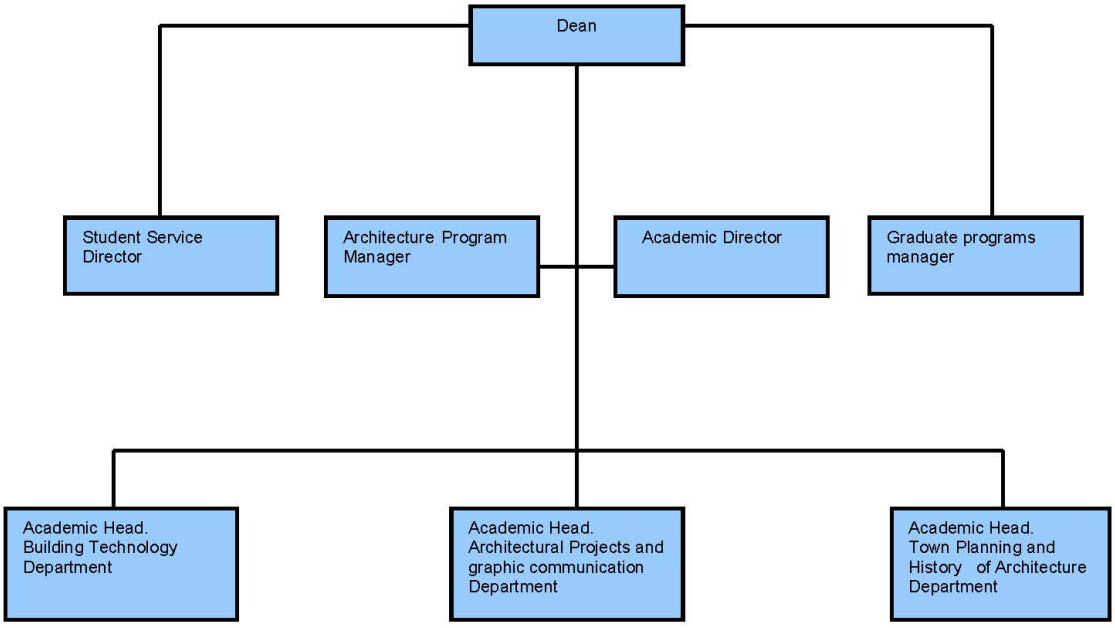
Dean: Leads the School to position it as a reference of prestige and excellence, ensuring a profitable growth that contributes to achieving the strategic objectives of UEM and Laureate International Universities.

Manager of Academic Programs. Leads the profitable growth of the Academic Area through attracting students, seeking new products, continuous improvement of existing products, and connecting with professional fields of reference.

Academic Director: Ensures the proper operation and continuous improvement of the School regarding issues of academic logistics and coordination, and of processes that impact on professors. The Academic

Director works coordinates the program of architecture, and ensures the overall quality of the degree program and its continuous improvement through the coordination of content of courses and professors, the service provided to the faculty and schedules.

Student Service Director: This is a new management role at the School. The Student Service Director ensures the overall quality of the degree program and its continuous improvement through the relationship with the student's academic issues.



Description of the program's administrative structure.

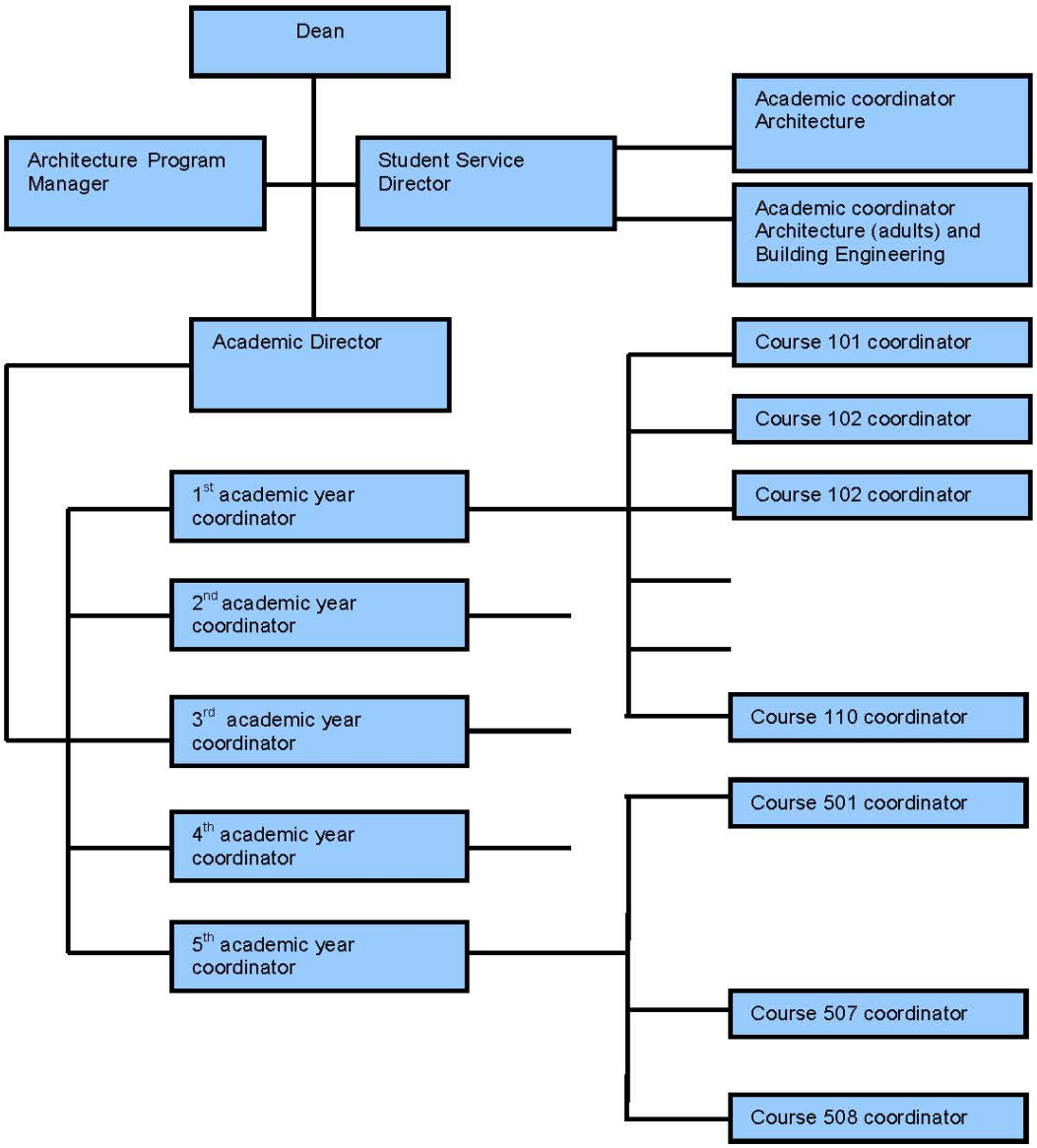
The Program Board is comprised of the following:
Dean, Architecture program manager, Academic Director , Student Service Director and the following roles:

Academic Department Head: Three Academic Department Heads work in the Academic Director´s team. They manage academic resources, overseeing the continuous improvement in the quality of education offered at UEM. Promote and support the professional development of faculty.

Academic coordinator: Two academic coordinators work in the Student Service Director's team and are in charge of the student's academic issues (enrollment process, transcripts, tuitions, grades, relations with the office of the registrar and the enrollment department) and all the services provided to the student. One specific coordinator is the *International Coordinator*, who promotes the experience of our international perspective, the mobility of both students and professors and, in short, improving the international profile of the School.

Academic year coordinator. These professors coordinate and lead the courses of their academic year. There are professors of Design studio (2nd-5th academic year) and professors of drawing topics (1st academic year). All the academic year coordinators comprise the coordination committee of the program.

Course coordinator: Each course has a course coordinator. He/she is the person chiefly responsible for the course and all the different groups/professors of that course: coordination of content, competences and evaluation criteria, consistency between the class program and the official syllabus, communication and feedback to the program coordinator, selection of exercises and projects for final exhibits/publications, etc.



Description of the opportunities for involvement in governance, including curriculum development, by faculty, staff, and students in the accredited degree program.

There are opportunities for involvement in governance of the program. The professors can speak with their head of department and offer to participate in the management of the School. The conditions are: the professor's profile, his/her skills and experience in management and his commitment. There is quite a lot of turnover among these roles, since the professors, as architects, do not have much time to devote to these roles, and so generally speaking it is not difficult to find a management role.

There are several middle management roles which can be opportunities for developing a management career (course coordinator, professional internship coordinator, enrollment interview coordinator, international tutor, etc.). There are also higher roles as academic coordinator or program coordinator (these roles entail a reduction in class hours). Any lecturer or professor can be a candidate for these roles. If they do not apply for these roles, they still perform a basic management task by tutoring students.

Before being part of the Faculty board (academic director, head of department, program manager or international programs manager), in several cases the professors have served in middle management roles or higher roles.

Finally, the roles of the Faculty board are chosen by the Dean, the Rector and the Director of Human Resources. They interview each candidate, analyzing their resume, competences, academic management experience, and commitment. All the members of the faculty board are professors and have reduced teaching hours. Among the faculty board, the Dean and Heads of Department must hold a PhD.

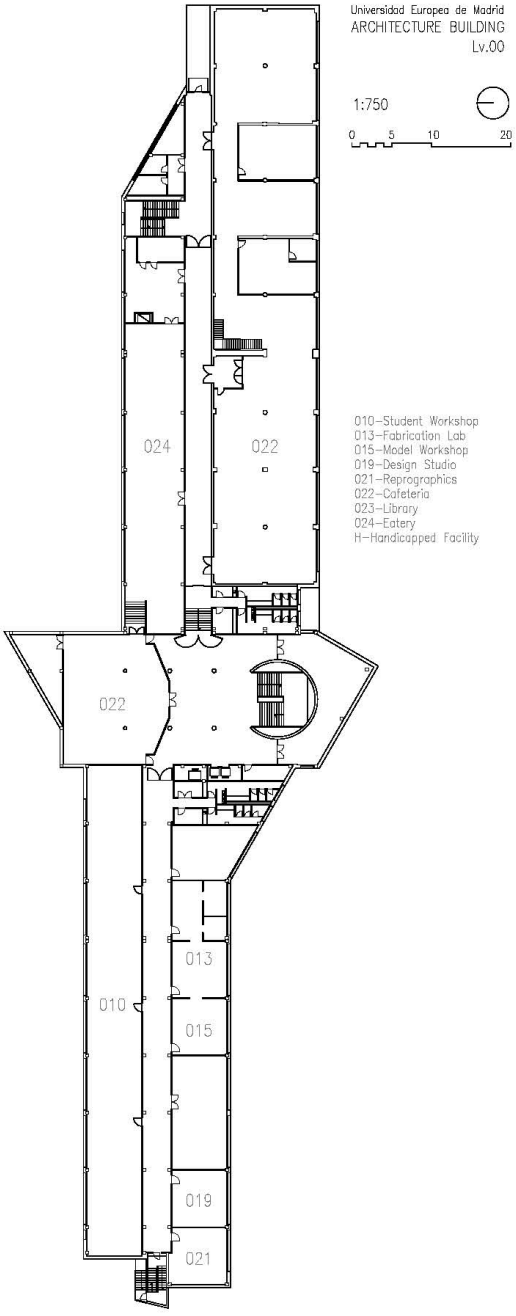
There is a specific program to train future members of the faculty board and future high management roles (like Dean, Head of Department, etc.), which is the ***Talent Pool*.** This Pool is a training program that selects the most suitable and talented candidates from middle or high management roles according to their high performance and competences, and prepares them for future replacements at the very high management level. The candidates are selected by the Dean, the Rector and the Director of Human Resources. The competences developed in the program are: leadership, management of teams, financial issues, coaching, social skills, etc.

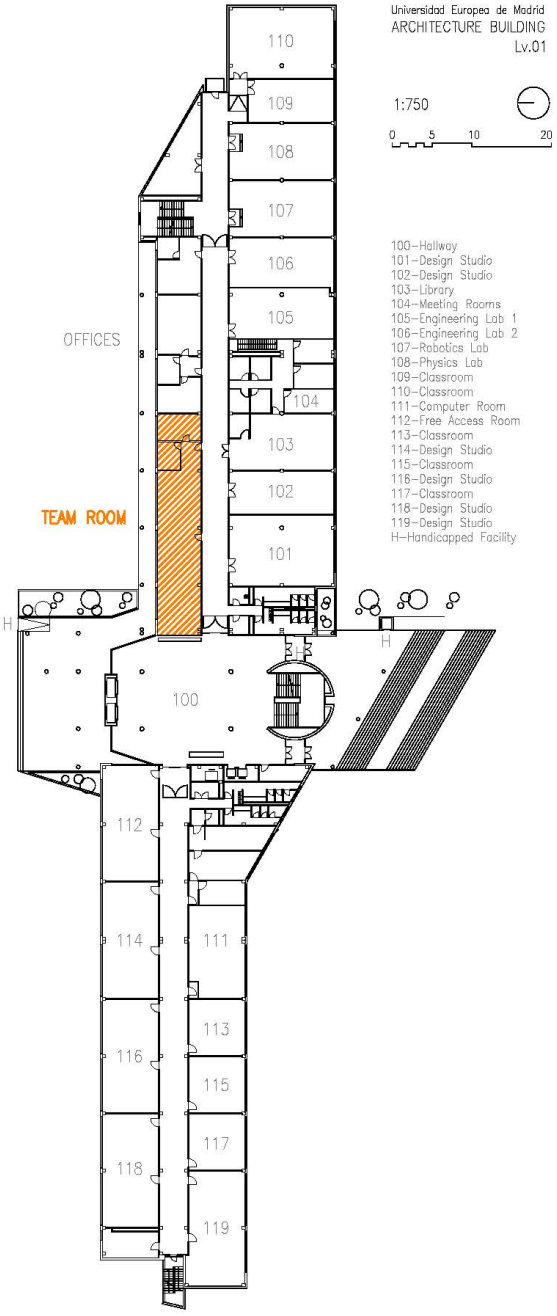
List of other degree programs, if any, offered in the same administrative unit as the accredited architecture degree program.

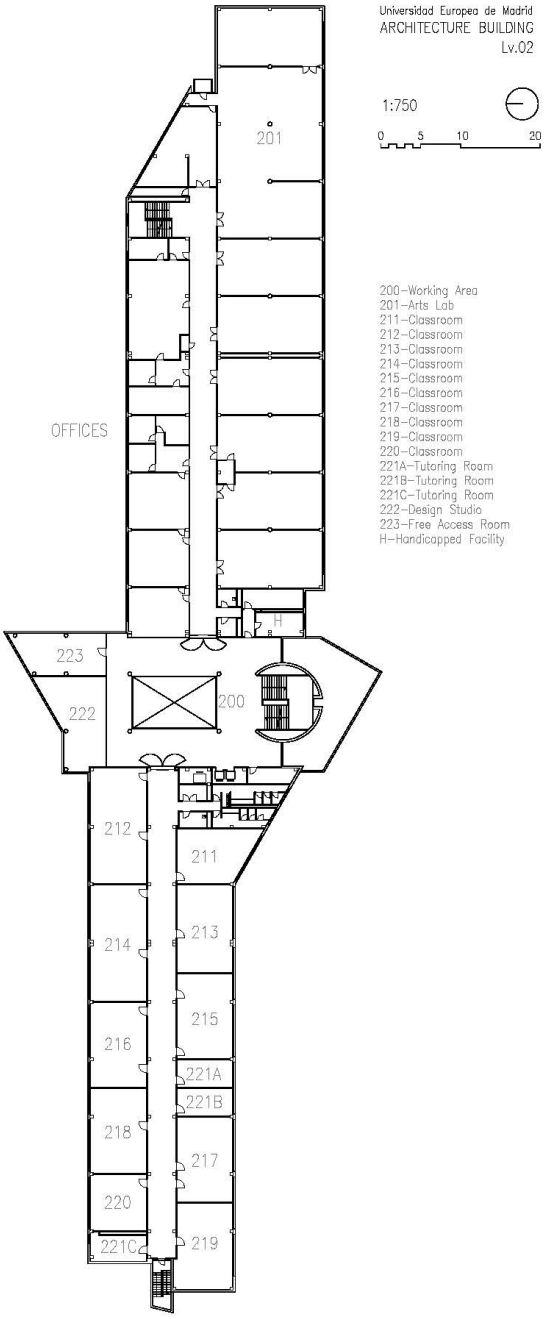
- Dual Bachelor's Degree in Fundamentals of Architecture plus Bachelor's Degree in Design
- Dual Bachelor's Degree in Fundamentals of Architecture plus Bachelor's Degree in Art
- Dual Bachelor's Degree in Fundamentals of Architecture UEM MADRID Spain plus Bachelor of Architecture NSAD SAN DIEGO USA.
- Bachelor's Degree in Building engineering
- Master's Degree in Integrated Architecture Projects
- Master's Degree in 21st Century City Management
- Master's Degree in Advanced Techniques in Architectural Projects
- Master's Degree in Pathology and Sustainable Rehabilitation
- Master's Degree in Sustainable Building and Energy Efficient Restoration
- Master's Degree in Project Management
- Master's Degree in Facility Management
- Master's Degree in Facilities and Energy Auditing
- Master´s Degree in sports facilities-REAL MADRID

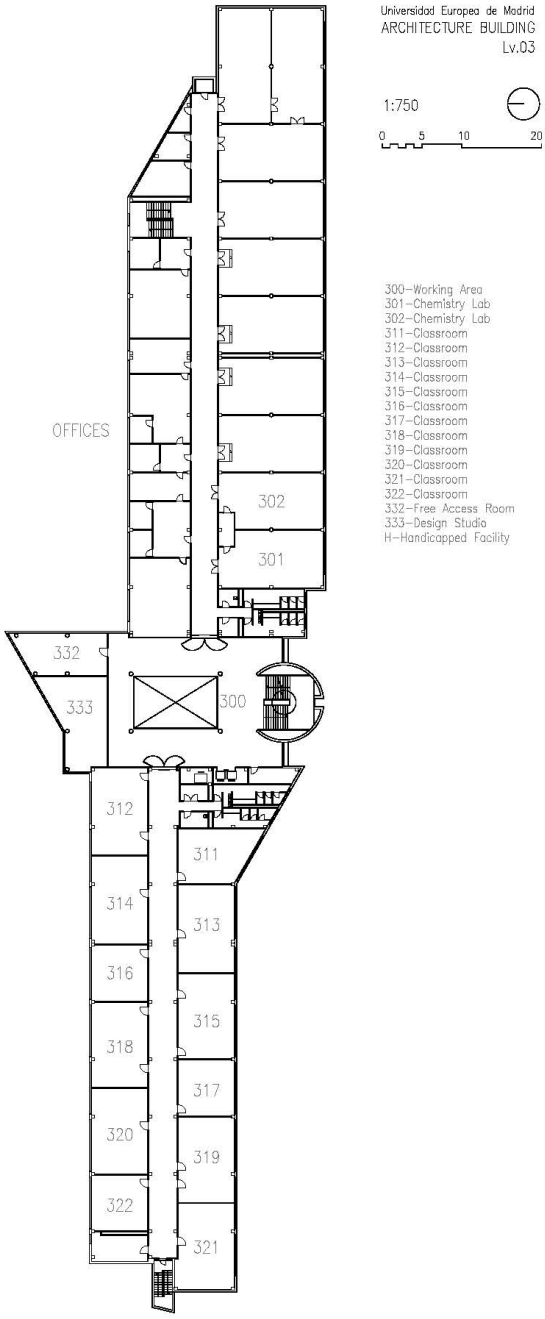
I.2.3. Physical Resources

General description, together with labeled 8-1/2" x 11" plans of the physical plant, including seminar rooms, lecture halls, studios, offices, project review and exhibition areas, libraries, computer facilities, workshops, and research areas.






Universidad Europea de Madrid
ARCHITECTURE BUILDING
Lv.02
1:750
0 5 10 20
200-Working Area
201-Arts Lab
211-Classroom
212-Classroom
213-Classroom
214-Classroom
215-Classroom
216-Classroom
217-Classroom
218-Classroom
219-Classroom
220-Classroom
221A-Tutoring Room
221B-Tutoring Room
221C-Tutoring Room
222-Design Studio
223-Free Access Room
H-Handicapped Facility
OFFICES
201
H
223
222
200
212
211
214
213
216
215
221A
221B
218
217
220
219
221C


Universidad Europea de Madrid
ARCHITECTURE BUILDING
Lv.03
1:750
0 5 10 20
300-Working Area
301-Chemistry Lab
302-Chemistry Lab
311-Classroom
312-Classroom
313-Classroom
314-Classroom
315-Classroom
316-Classroom
317-Classroom
318-Classroom
319-Classroom
320-Classroom
321-Classroom
322-Classroom
332-Free Access Room
333-Design Studio
H-Handicapped Facility
OFFICES
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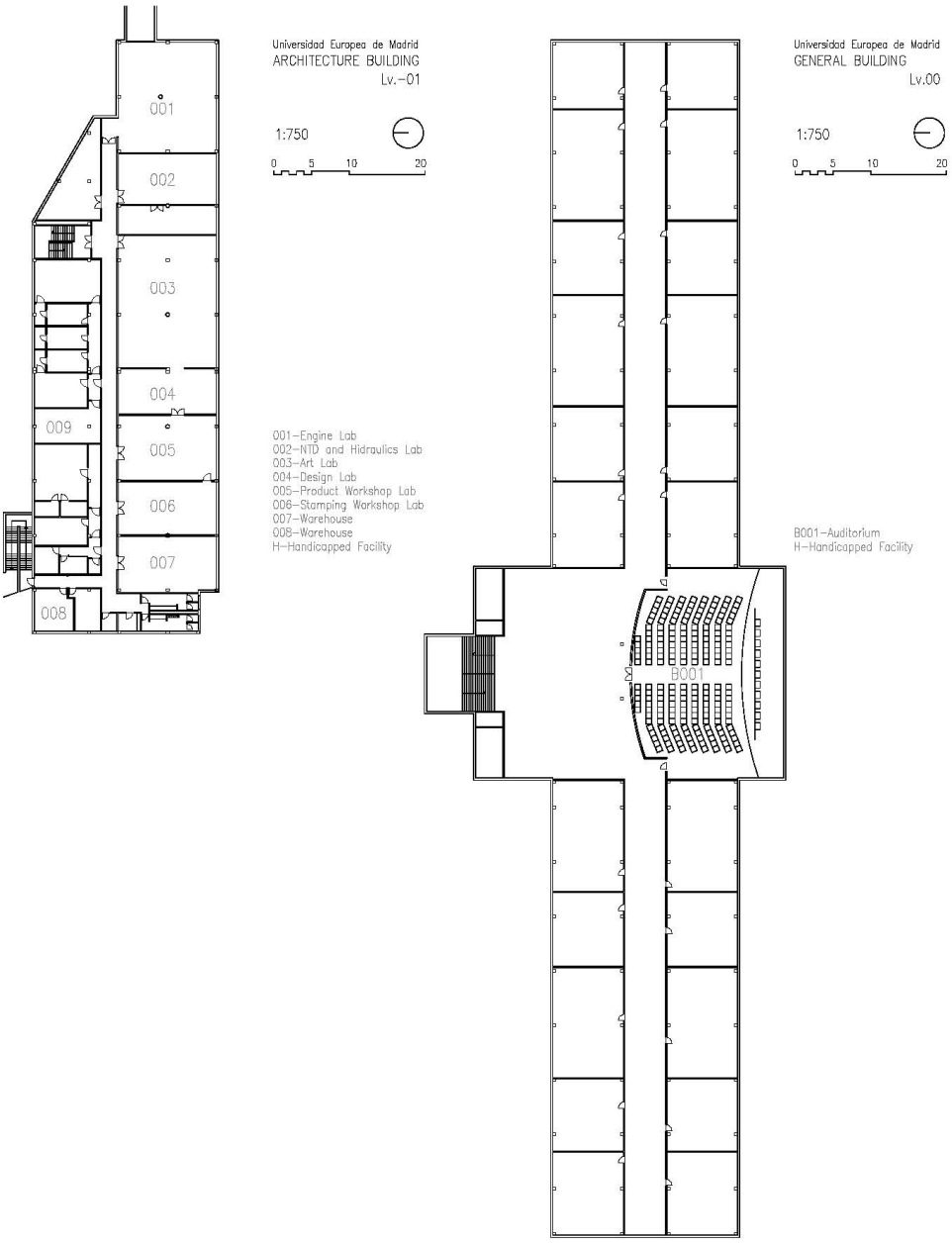

Description of any changes to the physical facilities either under construction or proposed.

There are several changes since last visit. We have increased the students' workspace for individual and team work, we have moved the rooms for printing and modelling, etc. These changes are explained in more detail in the program response to the CAUSES OF CONCERN (see page 137).

Description of the hardware, software, networks, and other computer resources available institution-wide to students and faculty including those resources dedicated to the professional architecture program.

The University has two main networks: the Intranet (for Staff) and the Virtual Campus (for students and professors). Both networks need a code to access. The Virtual Campus has forum for communication between faculty-students, assignments, and a lot of pedagogic material uploaded. In the following list we define the hardware and software per classroom:

BUILDING C

SOFTWARE + HARDWARE

C101

- 30 Dell DCTA
- Digital Interwrite Dual Board
- Hp Scanjet G4010
- Hp Designjet 500 A0
- Hp Laserjet 5200 tn BN

ADOBE PREMIERE 6.0
QUICKTIME
PROTOPO
SAP 2000
VLC MEDIA PLAYER
RHINOCEROS 4.0
SKETCHUP PRO
7-ZIP
MICROSOFT WINDOWS 7
MICROSOFT OFFICE 2010 PROF
AUTODESK DESIGN REVIEW
AUTODESK DWG TRUE VIEW
AUTODESK ECOTEC 2011
MICROSOFT PROJECT 2010
PRESTO 11
CYPECAD 2012
GRASSHOPPER
ADOBE FIREWORKS CS6
ADOBE FLASH BUILDER 4.6
ADOBE FLASH PROFESSIONAL CS6
ADOBE ILLUSTRATOR CS6
ADOBE INDESIGN CS6
ADOBE MEDIA ENCODER CS6
ADOBE PHOTOSHOP CS6
ADOBE PRELUDE
ADOBE SPEEDGRADE CS6
ARCHICAD 15
ADOBE AFTER EFFECTS CS6
ADOBE AUDITION CS6
ADOBE BRIDGE CS6
ADOBE DREAMWEAVER CS6
ADOBE ENCORE CS6
ADOBE EXTENDSCRIPT TOOLKIT CS6
AUTODESK AUTOCAD 2013
AUTOCAD ARCHITECTURE 2013
AUTOCAD CIVIL 3D 2013
AUTOCAD ELECTRICAL 2013
AUTOCAD MAP 3D 2013
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AUTODESK INVENTOR VIEW 2013
AUTODESK NAVISWORK 2013
AUTODESK REVIT ARCHITECTURE 2013
AUTODESK REVIT MEP 2013
AUTODESK REVIT STRUCTURE 2013
AUTODESK ROBOT STRUCTURAL ANALYSIS PROF 2013
AUTODESK VAULT 2013
ARKTEK TRICALC 7.5
AUTODESK ALIAS DESIGN 2013

C102

-5 Dell DCTA
-Digital Interwrite Dual Board
-Hp Laserjet 5200 tn BN

ADOBE PREMIERE 6.0
QUICKTIME
PROTOPO
SAP 2000
VLC MEDIA PLAYER
RHINOCEROS 4.0
SKETCHUP PRO
7-ZIP
MICROSOFT WINDOWS 7
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AUTODESK ROBOT STRUCTURAL ANALYSIS PROF 2013
AUTODESK VAULT 2013
ARKTEK TRICALC 7.5
AUTODESK ALIAS DESIGN 2013

C108

-29 Dell DCTA
-Digital Interwrite Dual Board

ELAC TECHNISCHE SOFTWARE CARA 2.1. PLUS
LINEAR X SYSTEMS LEAP ENCLOSURE SHOP 5
ADAGUIDE
APACHE
CIRCUITMAKER 6 STUDENT
GNU CLISP (LINUX)
GNU CLISP (WINDOWS)
JGRASP
PCGRASP

QUICKTIME
SWI PROLOG
ECLIPSE
GNAT 3.15
ETF5.X
TRUERTA
MICROWIND 2
ISPLEVER
MAX+PLUX II
CLIPSWIN
JRE
WEKA
CSOUND AV WIN 4.19
KRISTAL AUDIO ENGINE
XILINX ISE 6
IZOTOPE OZONE 3.08
IZOTOPE SPECTRON 1.07
BASS BOX
BCC55
CARACAD Room Acoustics
KDEVELOP (LINUX)
ModelSIM XE/II Starter
MOZILLA FIREFOX
MOZILLA THUNDERBIRD
OPENOFFICE (LINUX)
QT DESIGNER (LINUX)
K3B (LINUX)
GNOME FUNDATION (LINUX)
KDE (LINUX)
MYSQL v.5
CALENER
ANSYS 11
CARSIM 6.05
JDK
JSDK
VMWARE PLAYER
FREELING
JCL (JEDI CODE LIBRARY)
JVCL (JEDI VISUAL COMPONENT LIBRARY)
AUDACITY
VLC MEDIA PLAYER
WIRESHARK
GLADE (LINUX)
KOMMANDER (LINUX)
PoEDIT
CAMSTUDIO 2.0
CISCO PACKET TRACER 5
FREEMIND
CMAP TOOLS
MICROSOFT VIRTUAL PC 2007
PROCESSING
7-ZIP
GCC
CUTEPDF
DBDESIGNER
DIRECTX SOFT. DEVELOPMENT KIT
FOXIT READER
GANTTPROJECT
GIMP
ARDUINO
ALTERA COMPLETE DESING SUITE 7.2
PCWH STUDENT DEVELOPMENT KIT
LINUX
TRACKMATE
MICROSOFT WINDOWS 7
MICROSOFT OFFICE 2010 PROF
POWER DVD
PYTHON
MICROSOFT PROJECT 2010
MICROSOFT VISIO 2010
RAPIDMINER
ORACLE VIRTUALBOX
MICROSOFT VISUAL STUDIO 2010
WAMPSERVER2
EAGLE 5.8
KEIL UVISION 3
XILINX ISE 10
VISUAL CACHE
HATEML
JOOMLA
KOMPOZER
LOGISIM
ORACLE 11
LEGO MINDSTORMS Education
GOOGLE CHROME
MICROSOFT INTERNET EXPLORER 9
NOMINAPLUS 2011
FACTURAPLUS 2011
A FORCE MORE POWERFULL
ADOBE READER X
AUTOCAD 2012
ALLEYCODE
DXGETTEXT
ADONIS
KETTLE: PENTAHO DATA INTEGRATION
MATLAB 2011A
NETBEANS 7
SOLID WORKS 2011
BRICXCC
BLACKBERRY WEB DEVELOPMENT PARA ECLIPSE
BLACKBERRY WEBWORKS SDK
ANDROID SDK
SAMSUNG GALAXY TAB ADD-ON FOR ANDROID SDK
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NOOK SDK FOR ANDROID
QT SIMULATOR
NOKIA WEB SDK SIMULATOR
LG SDK FOR THE JAVA PLATFORM
CATIA V5
NASTRAN
BUS TOOLS ? 1553 7.00
BUS TOOLS ? ARINC
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FACTURAPLUS 2012
NOMINAPLUS 2012
SPSS 20
.NET FRAMEWORKS
BLACKBERRY PLUGINS PARA MS VISUAL STUDIO
FIREFOX FOR MOBILE SIMULATOR
FOCA FREE
GIT CONTROL VERSIONES
HI EDITOR
IMMI
LEJOS NXJ
LEJOS NXJ PLUGIN FOR ECLIPSE
MATLAB R2012A
MICROSOFT LIVECAM2
NDK BLACKBERRY
NOTEPAD ++
OPEN PROJECT
PHONEGAP SIMULATORS
POWERSIM PSIM
SDK PACKAGES ANDROID
SILVERLIGHT
SOFTWARE MYDAQ + TARJETA
UMBRELLO LINUX
VISUAL BASIC 2010 EXPRESS
VISUAL C++ 2010 EXPRESS
VISUAL C++
VISUAL STUDIO 2010 EXPRESS FOR WINDOWS PHONE
WINDOGRAPHER
WINDOWS AZURE SDK
WINDOWS MOVIE MAKER
WINDOWS PHONE SDK
XML COPY EDITOR

XNA FRAMEWORK
XNA GAME STUDIO
ZOOMIT
ANSYS 14
BURP SUITE
CODE RUSH AND REFACTOR PRO
DEV C++

C109

-5 Dell DCTA
-Digital Interwrite Dual Board

ADOBE PREMIERE 6.0
QUICKTIME
PROTOPO
SAP 2000
VLC MEDIA PLAYER
RHINOCEROS 4.0
SKETCHUP PRO
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AUTODESK VAULT 2013
ARKTEK TRICALC 7.5
AUTODESK ALIAS DESIGN 2013

C110

-30 Dell DCTA
-Digital Interwrite Dual Board
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C111

-31 Dell DCTA
-Digital Interwrite Dual Board

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LINEAR X SYSTEMS LEAP ENCLOSURE SHOP 5
APACHE
CIRCUITMAKER 6 STUDENT
JGRASP
PCGRASP
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SWI PROLOG
ECLIPSE
WINQSB
ETF5.X
TRUERTA
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ISPLEVER
MAX+PLUX II
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JSDK
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ISPOL
FREELING
AUDACITY
DYAGATS
3D FOUNDATION
CHAC
HEC-HMS
HEC-RAS
HEC-RES-SIM
WIRESHARK
PoEDIT
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FREEMIND
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PROCESSING
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MOBILITY
PLUTO
TRACKMATE
ARCGIS
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BEAMAX
MOHID
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RAPIDMINER
ORACLE VIRTUALBOX
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WAMPSERVER2
EAGLE 5.8
KEIL UVISION 3
XILINX ISE 10
VISUAL CACHE
IBER
HATEML
JOOMLA
LOGISIM
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PRESTO 11
RATIONALPLAN MULTI PROJECT
LEGO MINDSTORMS Education
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XML COPY EDITOR
XNA FRAMEWORK
XNA GAME STUDIO
ZOOMIT
ANSYS 14
BURP SUITE
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DEV C++

C112

-27 Dell DCTA
-Digital Interwrite Dual Board
-Hp Scanjet G4010
-Hp Laserjet 5200 tn BN

ADOBE PREMIERE 6.0
QUICKTIME
PROTOPO
SAP 2000
VLC MEDIA PLAYER
RHINOCEROS 4.0
SKETCHUP PRO
7-ZIP
MICROSOFT WINDOWS 7
MICROSOFT OFFICE 2010 PROF
AUTODESK DESIGN REVIEW
AUTODESK DWG TRUE VIEW
AUTODESK ECOTEC 2011
MICROSOFT PROJECT 2010
PRESTO 11
CYPECAD 2012
GRASSHOPPER
ADOBE FIREWORKS CS6
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ADOBE ILLUSTRATOR CS6
ADOBE INDESIGN CS6
ADOBE MEDIA ENCODER CS6
ADOBE PHOTOSHOP CS6
ADOBE PRELUDE
ADOBE SPEEDGRADE CS6
ARCHICAD 15
ADOBE AFTER EFFECTS CS6
ADOBE AUDITION CS6
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AUTODESK REVIT STRUCTURE 2013
AUTODESK ROBOT STRUCTURAL ANALYSIS PROF 2013
AUTODESK VAULT 2013
ARKTEK TRICALC 7.5
AUTODESK ALIAS DESIGN 2013

C114

-9 Dell DCTA
-Digital Interwrite Dual Board

ADOBE PREMIERE 6.0
QUICKTIME
PROTOPO
SAP 2000
VLC MEDIA PLAYER
RHINOCEROS 4.0
SKETCHUP PRO
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AUTODESK INVENTOR VIEW 2013
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AUTODESK REVIT MEP 2013
AUTODESK REVIT STRUCTURE 2013
AUTODESK ROBOT STRUCTURAL ANALYSIS PROF 2013
AUTODESK VAULT 2013
ARKTEK TRICALC 7.5
AUTODESK ALIAS DESIGN 2013

C115

-3 Dell DCTA
-Digital Interwrite Dual Board

ADOBE PREMIERE 6.0
QUICKTIME
PROTOPO
SAP 2000
VLC MEDIA PLAYER
RHINOCEROS 4.0
SKETCHUP PRO
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ARCHICAD 15
ADOBE AFTER EFFECTS CS6
ADOBE AUDITION CS6

ADOBE BRIDGE CS6
ADOBE DREAMWEAVER CS6
ADOBE ENCORE CS6
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AUTODESK ROBOT STRUCTURAL ANALYSIS PROF 2013
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AUTODESK ALIAS DESIGN 2013

C116

-10 Dell DCTA
-Digital Interwrite Dual Board

ADOBE PREMIERE 6.0
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C117

-2 Dell DCTA
-Digital Interwrite Dual Board
-Hp Laserjet 5200 tn BN

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C118

-10 Dell DCTA
-Digital Interwrite Dual Board

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AUTODESK ROBOT STRUCTURAL ANALYSIS
PROF 2013
AUTODESK VAULT 2013
ARKTEK TRICALC 7.5
AUTODESK ALIAS DESIGN 2013

C119

-26 Dell DCTA
-Digital Interwrite Dual Board
-Hp Scanjet G4010
-Hp Laserjet 5200 tn BN

ADOBE PREMIERE 6.0
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AUTODESK ROBOT STRUCTURAL ANALYSIS
PROF 2013
AUTODESK VAULT 2013
ARKTEK TRICALC 7.5
AUTODESK ALIAS DESIGN 2013

C122

- Universal Laser Systems 800x450
- 3 Dell Optimex 780
- Hp Color Laser Jet 5550 n
- Hp scanjet 9000
- Hp Designjet T1100 A0
- Hp Designjet 500

ADOBE PREMIERE 6.0
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AUTODESK ROBOT STRUCTURAL ANALYSIS PROF 2013
AUTODESK VAULT 2013
ARKTEK TRICALC 7.5
AUTODESK ALIAS DESIGN 2013

C209

-5 Dell DCTA

QUICKTIME
A.D.A.M. Interactive Anatomy 4.0
7-ZIP
MICROSOFT WINDOWS 7
MICROSOFT OFFICE 2010 PROF
INTERACOUSTICS OTOACCESS
INTERACOUSTICS TITAN
MICROSOFT INTERNET EXPLORER 9
ADOBE READER X
AFFINITY SUITE
NOAH
OASIS FITTING SOFTWARE
RESOUND AVENTA
OTICON GENIE
CUSTOM SOUND SUITE 3.2
PHONAK TAGET 3.03
PHONAK LIFE

C222

-10 Dell DCTA

ADOBE PREMIERE 6.0
QUICKTIME
PROTOPO
SAP 2000
VLC MEDIA PLAYER
RHINOCEROS 4.0
SKETCHUP PRO
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AUTODESK ROBOT STRUCTURAL ANALYSIS PROF 2013
AUTODESK VAULT 2013
ARKTEK TRICALC 7.5
AUTODESK ALIAS DESIGN 2013

C223

-5 Dell DCTA
-Digital Interwrite Dual Board

ADOBE PREMIERE 6.0
QUICKTIME
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VLC MEDIA PLAYER
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AUTODESK VAULT 2013
ARKTEK TRICALC 7.5
AUTODESK ALIAS DESIGN 2013

C301

-3 Dell DCTA

QUICKTIME
VLC MEDIA PLAYER
ADOBE READER 9
MICROSOFT WINDOWS 7
MICROSOFT OFFICE 2010 PROF
MICROSOFT INTERNET EXPLORER 8

C302

-3 Dell DCTA

QUICKTIME
VLC MEDIA PLAYER
ADOBE READER 9
MICROSOFT WINDOWS 7
MICROSOFT OFFICE 2010 PROF
MICROSOFT INTERNET EXPLORER 8

C332

-1 Dell DCTA

ADOBE PREMIERE 6.0
QUICKTIME
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SAP 2000
VLC MEDIA PLAYER
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-5 Dell DCTA
-Digital Interwrite Dual Board

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AUTODESK ALIAS DESIGN 2013

Changes in funding models for faculty, instruction, overhead, or facilities since the last visit and plans for addressing these changes (include tables if appropriate).

There have been no changes since visit 1.

Any other financial issues the program and/or the institution may be facing.

No other financial issues.

I.2.5. Information Resources

Description of the institutional context and administrative structure of the library and visual resources

It is thought of as a strategic service providing support for learning, tuition, research and lifelong learning. Its **Mission** is to provide an excellent service to our users/clients, as an active agent in the learning, research and innovation processes, through the integrated management of resources and information services that meet their needs, thereby contributing to achieving the objectives of the University. Its organization and structure is governed by standards that are approved by the Academic Council of the University. Organically, it is part of the **School of Doctoral Studies and Research** and counts on the support of a Library Committee (comprising the Director, the Academic Area Coordinator and one representative from each School) and a Disciplinary Committee (made up of by members of the CRAI Library itself). It is structured into two fields of activity and service: “Management and Handling of Information” and “Dissemination and Use of Information”.

Planning and strategy

The management of the Library has taken on the challenge of integrating the Library to become an agent and key service for the transformation to the new EHEA academic model and in addition to respond to the needs arising from the new European Research Area (ERA). This continuously evolving context, in conjunction with the SWOT analysis, is the scenario that has been taken into account to develop its different Strategic Plans. Special emphasis has been placed on becoming the *Centro de Recursos para el Aprendizaje y la Investigación* (CRAI), [Resource Center for Learning and Research] to which the Library adds Innovation as part of its academic service strategy (CRAI^2). Our **Vision** is to become a campus-based and virtual Resources Center for Learning, Research and Innovation as a key element in all the holistic educational processes and both the teaching and research activity as well as being a reference for the libraries belonging to the Network.

The Strategic Plans of the Library are based on those of the University, adapting their lines of activity depending on the needs and expectations of our users/clients, the changes in the university environment in which it carries out its activities and the institutional lines of action. Internally, the strategic process "Strategy Management" provides guidelines and establishes the standards that allow the lines of activity and strategic service objectives to be implemented, responding to the needs and expectations (both implicit and explicit) of our users/clients.

Since 2008, a Managing Board comprising the Director and Academic Areas Coordinator has facilitated an integrated and horizontal management of the strategy and an effective evolution of communication including the development of the processes being managed. The systematic SWOT analysis allows for planning by means of identifying both internal and external environmental factors. In addition, we benefit from the following tools that allow such planning to take place: processes map, ownership of the processes and monthly planning of the activity and the processes which are participated in. The strategic **lines** of the **III CRAI Library Strategic Plan 2012-2015** are as follows:

Line 1 - LIBRARY EXCELLENCE (recognitions and certifications, social responsibility and user/client satisfaction)

Our commitment to quality and continuous improvement is to maintain confidence and respond to the needs and expectations of our users/clients, taking as a reference the leading organizations and promoting the social and cultural nature of the service.

Line 2 - INTEGRATED MANAGEMENT OF RESOURCES AND SERVICES (technological, human, economic, information and spatial)

As a principle for an effective, efficient and professional organization that allows all activities to be coordinated, we collate reliable data regarding our performance and establish opportune improvements and developments.

Line 3 - LEARNING, RESEARCH AND INNOVATION

We are active agents in the development of the competences and informational skills required for the learning, research and innovation processes within the different scenarios established by the educational model of the University.

Line 4 - COLLABORATION AND PARTNERSHIPS (benchmarking, collaboration with the Laureate Network and REBIUN [University Libraries Network])

We form part of the library networks of both Spanish and Laureate International Universities providing added value and an excellent opportunity for collaboration together with the establishment of partnerships.

Assessment of the library and visual resource collections, services, staff, facilities, and equipment that does the following:

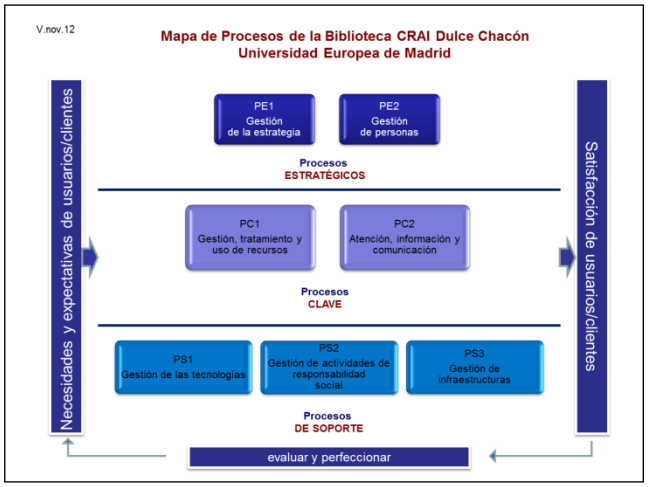
Since 2007, our processes management system and the application of the **EFQM Model** as a tool for the analysis and diagnosis of our service, (currently we hold the **EFQM 400+ Seal of Excellence**), has allowed us to become an important point of reference both internally as part of the services offered by UEM and externally among the other university libraries. These are the key factors of the success we have achieved. Since 2008, the Library has declared its commitment to quality and continuous improvement that have been established as main lines of action for the activities and services we offer our users/clients. This has been done through the publication of our **Services Menu**, in which 7 indicators are reviewed and updated following the analysis of their results, increasing the level of fulfillment as regards this commitment year on year. It is worth noting that these indicators achieve their objectives every year, achieving 97.95% in 2012.

The Managing Board of the CRAI Library, headed up by the Director of the School of Doctoral Studies and Research, is responsible for stimulating the culture of quality in the team in addition to institutional values, creativity and innovation and social responsibility. These constitute the first point of reference and transmit their commitment to this culture, being proactively involved in its implementation at each level of service. This Managing Board comprising the Director and Academic Areas Coordinator has permitted integrated and horizontal management of the strategy and an effective evolution of communication including the development of the processes being managed. They promote and enhance the creativity and initiative of the team and are responsible for and have the authority to develop and review the strategy, ensuring that the necessary processes are established, implemented and maintained as part of the management system and in line with the strategy of the University. A description of the job positions is available for the assessment of non-academic personnel, with internal names for the staff (Director, Academic Area Coordinator, Assistant and Auxiliary). The definition of the different profiles reflects

Indicators, Processes, Duties and *Competences*, guaranteeing both equity and equal opportunities. The description and identification of these four characteristics allows for a multi-faceted working team to be established in addition to defining promotional opportunities and future implementations depending on the activities undertaken and the competences acquired. It additionally promotes the development of knowledge and competences in line with the present and future needs of the service, allocating training in accordance with future objectives and development and the abilities and knowledge of the team. Training is planned and budgeted for the entire team on an annual basis, taking into account the personal and professional development of the workforce. All new recruits attend courses on LCC Classification, Processes Management and EFQM. In addition, for the dissemination of knowledge to the corresponding academic area, each is assigned one member of the team to provide support and advice in relation to their integration into the team.

The CRAI Library assumes the **values** defined by Universidad Europea de Madrid that are encapsulated into 4 large groups: *The reason for our work; Our relationships with others and with our environment; Our way of operating; and Our personal project.* To achieve a culture of excellence within the team, the Managing Board of the CRAI Library establishes **key meetings** and communications that act as a means to transmit institutional information in addition to providing a tool for communicating and organizing the service.

As regards Processes Management, each process has an owner/co-owner assigned to it that is responsible for planning and implementing the process, its supervision and control, obtaining data regarding the indicators, the analysis and proposals for improvement actions, etc. The processes management allows for increased quality and the continuous improvement of the resources and services we offer, thereby achieving the standards required by the University and assisting in maintaining high levels of confidence and satisfaction from our users/clients year on year.



In addition, the participation and combination of **objectives** that takes place between the Managing Board and the members of the team is seen as a key element for involving the personnel and encouraging them to assume responsibilities and work as a team. The areas for improvement identified by the different **EFQM self-assessment reports**, the outcome of the satisfaction surveys as well as the review and follow-up of the processes management, are the main source of information to enable the members of the team to meet their annual objectives.

The suggestions and complaints received from the users/clients are essential sources of information to identify and put into practice other **actions for improvement**. Since 1999, different types of **surveys** have been carried out, whose frequency and scope vary depending on the activity and typology of the user/client to which the survey is directed. These include: *general satisfaction surveys for students, academic and non-academic staff* (every two years until 2011, the year in which these surveys became yearly; *satisfaction surveys regarding the training provided to students, academic and non-academic staff* (on a one-off basis when training takes place); *surveys regarding social responsibility activities with users/clients in general* (occasional), *internal satisfaction survey for library personnel* (every two years). The grading scale used for all these surveys is the Likert scale (from 1 to 5, where 1 is the worst grade

and 5 the best). It is worth noting the high level of user/client satisfaction with the service, where the CRAI Library survey carried out in 2012 achieved 4.06.

CRAI Library Technological Plan

Regarding the **use and application of technology,** the Library updates and renews its technological resources on a continuous basis, as contained in the various strategic plans and in the **Library Technological Plan 2011-2014**. This plan defines three fields of activity:

1. **The technology for the learning and innovation service**, with users/clients having access to technology thereby allowing them to develop and enhance their learning ability.

2. **The role of the Library in projects that support tuition and research** that offer support, services and equipment to enhance the activity of both professors and researchers.

3. **Support for the new scientific communication models**, by means of the personalized assessment of professors and researchers within the publication process and the set up of an institutional repository that preserves the academic and scientific output of the University.

In our quest for the application of technology, the owners of the processes are responsible for identifying emerging technologies, to improve processes, offering new services or optimizing existing resources. Our participation in "Line 2: Library and New Technologies" of the 1st REBIUN Strategic Plan 2003-2006, has allowed us to actively work on the development, research and application of technology in university libraries. Technological development is nothing new for the Library. It first started in 1995 with the automation of the service with the former SGB Libertas service and since then many technological innovations have been put into practice such as, for example, the change in 2001 to the SGB UNICORN. Then in 2007, new software for the integrated management of digital resources was implemented and in 2008, a new program for Inter-library loan management GTBib-Sod was set up. In 2009, the ISOTools tool to review and follow-up the quality system were introduced. In 2011, coinciding with the approval of the Technological Plan, new mediums were incorporated such as iPads, e-readers and tablets and in 2012, the SGB Millennium was started up, demonstrating that our service is committed to being at the forefront of the best university libraries as well as to responding to the new demands of its users/clients.

The assessment, follow-up and review of all these platforms and tools are reflected in the PS1 Management of Technologies. In addition, we benefit from the institutional support provided by the UEM technologies department that has established a system for updating and renewing technologies for all the University equipment.

Developing Collections, Services and Resources

From the outset, the Library has supported by the development of **collections** in terms of quality rather than quantity. Independently of the format in which they are found, our collections have been growing in line with the following criteria: the need for the bibliographies recommended by the curricula, the number of students, the need for specialist bibliographies for professors and research, relevant donations, new mediums, etc. In 2001, an assessment of the status of the collections was carried out to identify corrective actions for the selection and acquisition of materials so that the collections could be adapted to the real needs of its users/clients. In 2005, the "Collection Development Policy" was established, that provides accurate information regarding the composition of the bibliographic resources, its performance and the evolution of the indicators. This allows measures to be proposed to improve the performance of these collections. Since 2010, as a result of the processes review, this document was incorporated into the former Policy and Strategy Management Process (as "Standards for the management and development of the collection"). Following the updating of the Map in 2013, this framework document became part of the PC1 process - Management, handling and use of resources.

Since 1997, the **digital resources** have been evolving from a service that provides access to databases to a digital collection with 24x365 access from any computer connected to the Internet available to all users/clients at the University. Between 1999 and 2005, the tools necessary to enable the management of and access to these resources were implemented. Since 2008, the Library has benefitted from a support process for the management and follow-up of this collection. Thanks to the development of this approach, a specific portal was created in 2010 to store and access digital resources (Digitalium). This allows the CRAI Library to increase the use of these resources. It is worth highlighting the growing use of the digital collection since it was set up, rising from 2,656 sessions in 2001 to 203,965 in 2012.

The Library offers various ***services*** that allow for the access, provision and use of both own and external bibliographic resources (catalogs, lending, Inter-Library Loans, free access computers, etc.), in addition to different ***products*** to disseminate information and act as a support to the services offered. The marketing systematically carried out aims to raise awareness of these products and services to attract new users/clients, guarantee the loyalty of regular users and, of course, achieve a greater level or frequency of usage. Similarly, different two-way communication systems are available to interact with the Library so that requests, suggestions and comments can be received both in person and remotely. By carrying out its own satisfaction surveys since 1999, the Library has been able to hone its services and activity, undertaking improvement actions to meet the needs and expectations of our users/clients.

Among the ***resources*** that the Library offers its users, particularly note-worthy are the reading rooms, group study rooms and a collaborative multimedia space; iPad and Android devices to support learning and tuition; DVD players, scanners and more than 80 computers available for public use. It offers various service points distributed over different Campus buildings with a total surface area of 1,904m^2.

The **bibliographic collection** comprises more than 100,000 volumes, more than 12,000 e-books, more than 1,200 serial publication titles, over 4,000 multimedia formats (audio books, DVD, CD-Audio, etc.). There are more than 18,000 digital serial publications encompassing all fields of knowledge, with free access organization using the Washington Congress classification system (LCC). In this respect and to give more detail, the section of the collection whose topics could be relevant to the **School of Architecture** is as follows:

Number of titles (textbooks and e-books):	**5,137**
Number of textbooks (physical books):	**4,839**
Number of e-book titles and licenses:	**298**
289 - online concurrent access allowed	
9 - one user per title	
Other types of e-materials available	**245**
Number of periodical journal titles:	**404**
316 e-serials (261 subscribed or with access through databases)	
88 printed serials (42 subscriptions and 46: donations or discontinued titles)	

Names of the Architecture journals routinely received:

2G: Revista Internacional de Arquitectura (International Architecture Journal)
A + U: Architecture and urbanism
a+t : architecture+technology
Abitare
AITIM : technical information bulletin
Architectural Design
Architectural Review

ARQ
Casabella : international architecture journal in Italian
Ciudad y Territorio : Estudios Territoriales (City and Land Studies)
Computer Graphics World
Detail : architecture and construction detail journal
Interior Design
Domus : international architecture, design, art and communication journal (Italian)
Ega : architectural graphic expression journal
GA Document
GA Houses
GA Japan
JoLA: Journal of Landscape Architectures
Landscape architecture
L'Arca (international architecture, design and visual communication magazine)
L'Architecture d'Aujourd'Hui Recherche Formes Interieures Arts Urbanisme (French architecture magazine)
Lotus International: architecture magazine in Italian
Materiales de Construcción (construction materials
Monu: urbanism magazine
Opus C
Paisajismo (landscaping)
Paisea: landscape architecture review
Pasajes de arquitectura y crítica (architectural landscapes and critique)
Quaderns d´estructures
Quaderns d'Arquitectura i Urbanisme
Restauro: international journal on historical heritage
Tectónica (monographs on architecture, technology and construction)
The Architectural record
The Japan architect
Topos: European landscape magazine
UHF 04
Urban
Urbanistica (urban planning)
Volume
Water, environment & technology
Restauración y rehabilitación (restoration and refurbishment)

List of the main electronic databases that can be accessed by students and faculty, inside and outside the Campus (available 24x7)

Subscriptions	**Open Access**
Academic Search Premier	AATA online
Avery Index to Architectural Periodicals	Alejandro de la Sota Foundation
CSIC Spanish National Research Council databases	Le Corbusier Foundation
Dialnet	Mies Van deer Rohe Foundation
Factiva	Grupo OMA & AMO
Norweb	Kisho Kurosawa
Scopus	Mario Botta Architect
Web of Knowledge	Norman Foster

Audiovisuals and audio books (DVD, CD-ROM, VHS): 66

The tools used to access information and learning materials available 24x365 are the following:

- **Web** (http://biblioteca.uem.es): offers general information regarding services, resources and organization. Intranet: enables access by professors and non-academic staff to the most frequently used management tools and most relevant information.

- **BUSCA catalog** (http://busca.uem.es): allows for the search and localization of digital resources, manuals, recommended bibliography, graduation projects, journals, etc. in addition to enabling transactions with users: loan renewals, reservation of issues, suggestions for the acquisition of issues, etc.

- **DESCUBRE meta search engine** (http://descubre.uem.es): a meta search engine that allows for the localization and access to all the material available in the collections, providing direct access to full text information of the main digital resources available.

Access is guaranteed to multiple digital resources by means of tacit agreements with suppliers that allow access 24x365 simply by using a device that has a connection to the Internet. All the users/clients, independently of their affiliation to a School may enjoy access to all of the resources on offer.

Training on informational skills

This type of training forms part of one of our key processes. It aims to train the user/client regarding the services offered by the Library, the proper use of information and to equip them with the knowledge and informational skills they need to identify, localize and use the information resources as basic instruments for learning, tuition, research and lifelong learning. During this process, the Library personnel undertake a training role for the end user/client, providing them with the knowledge required regarding the information services and resources in both printed and digital format. The typology of the workshops and sessions are as follows:

- **General information sessions and courses** for undergraduate students at the start of the academic year. The aim is to introduce the user to learning about the services and how to use the resources available at the CRAI Library.

- **Specialized information sessions and courses** for undergraduate students, graduate students and faculty regarding the use of both general and specific resources relating to their Academic Area or activity. These aim to equip the user/client with the knowledge and skills they need to search for and recover scientific information that is relevant to their field of knowledge using the available digital and printed resources. The specific training focuses on:

    - Developing basic necessary informational skills.

- A resource for specific information.
- A combination of specific resources for determined topical area.
- Bibliographic management tools.

- **One-day sessions, courses and workshops** organized by the University and that require the presence of Library personnel to explain the use, application and usage of related tools and resources.

- **Individual sessions** for users/clients attending the CRAI Library in person in which they have requested specific information regarding the services and resources of the CRAI Library. This request requires the CRAI Library personnel to devote the time necessary to provide personalized training to the user/client depending on their level and need for information, so that they can learn to search by themselves.

- **Faculty workshops** organized by the CRAI Library and Faculty Training (HR). Specific information is offered regarding the services and resources of the CRAI Library that is of particular interest to their area of activity and that assists their professional development (scientific assessment, bibliographic management...).

- **Workshops for non-academic personnel** organized by the CRAI Library and Faculty Training (HR). Specific information is offered regarding the services and resources of the CRAI Library that are of particular interest to their area of activity

- **Online courses on "Informational skills"** organized by the CRAI Library and Faculty Training (HR). The CRAI Library team supervises these courses that are created using an online format that allow the individuals attending to complete the units with a combination of self-assessment activities and submissions.

- **Specialized sessions on documentation for external clients** (on request and agreed in advance). The CRAI Library can offer courses that relate to your activities and is geared towards professionals. Other information services can also request courses from the Library.

The workshops and sessions are geared towards any user/client. At times, these enjoy the collaboration of the faculty that helps with their preparation in advance, advising topics of interest for the attendees and specific resources that focus on explanations and exercises.

For the sessions involving final year students, graduates and faculty, didactic guides are prepared that are handed out to the attendees, including the main and other additional resources available. During the specialized sessions, students have to complete and submit a hands-on task. These take place in groups of a minimum of 3 people. Finally, all the sessions and workshops are evaluated via a satisfaction survey regarding the training received and the trainer themselves. It is worth noting the high degree of satisfaction of the users/clients with the training received as reflected in the surveys, increases year on year, rising from 3.99 in 2007 to 4.57 in 2012. Furthermore, the satisfaction of the trainers is very high, rising from 4.34 in 2007 to 4.65 in 2013.

In addition, we offer a virtual reference service, 'Ask your Personal Librarian', that provides a real time response to your questions and queries regarding this service.

• Self-Assessment Policies and Objectives

• Personnel Policies including:

Position descriptions for all faculty and staff
Rank, Tenure, & Promotion
Reappointment
EEO/AA
Diversity (including special hiring initiatives)
Faculty Development, including but not limited to: research, scholarship, creative activity, or sabbatical.

• Student-to-Faculty ratios for all components of the curriculum (i.e., studio, classroom/lecture, seminar)

• Square feet per student for space designated for studio-based learning

• Square feet per faculty member for space designated for support of all faculty activities and responsibilities

• Admissions Requirements

• Advising Policies; including policies for evaluation of students admitted from preparatory or pre-professional programs where SPC are expected to have been met in educational experiences in non-accredited programs

• Policies on use and integration of digital media in architecture curriculum

• Policies on academic integrity for students (e.g., cheating and plagiarism)

• Policies on library and information resources collection development

• A description of the information literacy program and how it is integrated with the curriculum

Part Two (II). Educational Outcomes and Curriculum

II.1.1. Student Performance Criteria

Brief, narrative or graphic overview of the curricular goals and content for each accredited degree program offered or each track for meeting the requirements of the professional degree program.

The **Bachelor's Degree in Fundamentals of Architecture and the Master's Degree in Architecture** (2011 curricular program) and the **Bachelor´s Degree in Architecture** (2008 curricular program) and **Architecture** (2000 Curricular program) qualify the graduate to practice the regulated profession of Architect. They are three different versions of the same program, which has changed twice during the last 13 years in accordance with decisions of the different Councils of Ministers. In addition, the **Bachelor's Degree in Fundamentals of Architecture** (2011 curricular program) and the **Bachelor´s Degree in Architecture** (2008 curricular program) are very similar in length, topics, goals, credits and courses: for this reason, we consider that both programs could be in the same substantial equivalency process, even though the 2008 program will no longer exist in 5 years' time. (*)

(*) Quoting Miguel Angel Rodriguez from NAAB in his 2012 report pag. 4: "*Graduates with degrees issued under the different plans currently in effect, will still perform to equal minimum competencies and a strong case can be made that a designation of Substantial Equivalency for the requested 'plan' should also extend to students of the other current academic plans.*"

In the case of the the Bachelor's Degree in Fundamentals of Architecture and the Master's Degree in Architecture (2011 curricular program) this qualification is more recent, under the Agreement of the Council of Ministers dated July 23 2010. This degree is the prerequisite to the Master of Architecture, which provides 100% of the competences of the professional Architect (in the same way as in other countries these competences are provided by a regulated internship and/or a state exam). The other two degrees (2008 and 2000) do not need any Master for providing professional competencies.

As being the three Architecture programs different versions of the same regulated profession, their program's **mission** are the same:

- To enable graduates to work in any of the five profiles of an architect's work: **construction, urban planning, real estate, drawing, and design.**

- To respond to the demands of society and the job market by introducing principles and knowledge related to sustainability and the **environment, accessibility and internationality, communicative skills** (in Spanish and English), **business management** and the **efficient use of new technologies throughout the entire degree program**.

- To prepare the graduate **in a versatile and standard profile** in the different fields of Architecture as demanded in national and international, social and economic contexts.

- To develop **core competences (CC), basic competences (BC), state competences (SC) and degree specific competences (DSC)**. All those competences are guaranteed during the studies. There are five learning areas covered by the different competences: **art and humanities, science and technology, projects and production, management** and **integration** of the four learning areas. The program's competences are associated in this APR (see all the course syllabi) with the different **Student Performance Criteria SPC** items defined by the NAAB, which must be acquired by the time of graduation. In conclusion, one of the goals of the program is to develop all the NAAB Student Performance Criteria.

- To **integrate all the different fields and areas** through well-coordinated, integrated workshops and the Graduation project (this is a new goal for the 2008 and 2011 program).

The program of **Bachelor's Degree in Fundamentals of Architecture** and the **Master's Degree in Architecture** (2011 curricular program) is **300+60: 360 ECTS** (*) and is coursed over a period of five plus one academic years and 4476 class hours. After holding the Bachelor´s Degree in Fundamentals of Architecture (300 ECTS, 5 years) the student may access the Master's Degree in Architecture (60 ECTS, one academic year). Only after successfully completing the Master's Degree in Architecture program may the student acquire full professional certification as an Architect.

The program of **Bachelor´s Degree in Architecture** (2008 curricular program) is **300 ECTS** (*) and is coursed over a period of five academic years and 3678 class hours. After holding the Bachelor´s Degree in Architecture (300 ECTS, 5 years) the student may **acquire 100% professional certification as an Architect:** in other words, the student doesn´t need to hold a Master's Degree in Architecture to acquire the professional certification as an Architect.

(*) 1 ECTS=25 hours of class and autonomous work. In all courses, these 25 hours/ECTS are divided as **12 class hours/ECTS** and 13 autonomous hours/ECTS. (The exception is the Internship course: 0 class hours/ECTS and 25 internship hours/ECTS).

The program of **Architecture** (2000 curricular program) is 390 credits and is coursed over a period of five academic years and 5000 class hours. After holding this Bachelor´s Degree the student may **acquire 100% professional certification as an Architect.**

Therefore the Architecture program offers different paths:

Bachelor's Degree in Fundamentals of Architecture plus Bachelor's Degree in Art. (6 years, 432 ECTS). This is a Double Degree which combines all the Architecture courses (5 years, 300 ECTS) and the Bachelor's Degree of Art courses (4 years 240 ECTS). By means of a recognition matrix between both curricular programs' courses, we have established that 108 ECTS credits are common between both degrees (art, drawing, history courses) and this synergy reduces the length from 540 ECTS (300+240 ECTS) to 432 ECTS (credits that can be divided among across 6 years). The SPCs are developed in the same way as in the single Degree without Art, but the Art-specific competences are added in the graduate profile. In any case, the Master of Architecture is required for the professional license.

Bachelor's Degree in Fundamentals of Architecture plus Bachelor's Degree in Design (6 years, 432 ECTS). This is a similar path to Architecture + Art, but the combination is with the Bachelor's Degree in Design (Graphic design-Furniture Design). This is a Double Degree which combines all the Architecture courses (5 years, 300 ECTS) and the Bachelor's Degree in Design courses (4 years, 240 ECTS). By means of a recognition matrix between both curricular programs' courses, we have established that 108 ECTS credits are common between both degrees (design, drawing, history courses) and this synergy reduces the length from 540 ECTS to 432 ECTS (credits that can be divided among 6 years). The SPCs are developed in the same way as in the single Degree without Art, but the Design-specific competences are added in the graduate profile. In any case, the Master of Architecture is required for the professional license.

Bachelor's Degree in Fundamentals of Architecture for Building Engineers (3 years, 216 ECTS). This is a specific path for Building Engineers. We recognize 84 ECTS credits from these professionals (mainly in technology: construction, building services and structures), so they only have to study 210 ECTS (300-84 ECTS): these 210 ECTS can be divided among 3 years. In any case, the Master of Architecture is required for the professional license. The SPCs are developed in the same way as in the standard degree. The graduation project, which includes technology parts, guarantees the accomplishment of all the SCPs, even the SCP from the transfer of credits of the recognized courses.

Dual Degree: Bachelor's Degree in Fundamentals of Architecture UEM Madrid plus Bachelor of Architecture NSAD San Diego, USA (6/7 years). This is a Dual Degree which combines all the Architecture courses at Madrid (5 years, 300 ECTS) and the Bachelor of Architecture courses (5 years, 235 US credits). By means of a recognition matrix between both curricular programs' courses, we can organize part of the courses at UEM Madrid (1st-4th academic year) and the rest of the courses at NSAD San Diego (USA). The SPCs are developed in the same way as in the standard Degree, some at UEM Madrid and the rest at NSAD San Diego. The Master of Architecture is compulsory for the professional license in Spain.

Matrix for each accredited degree program offered or each track for meeting the requirements of the professional degree program, that identifies each required course with the SPC it fulfills.

Main Student Performance Criteria of the course

Secondary Student Performance Criteria of the course

NAAB Student Performance Criteria. Bachelor´s Degree in Fundamentals of Architecture courses	A 1. Communication Skills	A 2. Design Thinking Skills	A 3. Visual Communication Skills	A-4. Tecnical Documentation	A 5. Investigative Skills	A 6. Fundamental Design Skills	A-7. Use of Precedents	A 8. Ordering Systems	A 9. Historical Traditions and Global culture	A 10. Cultural Diversity	A 11. Applied research	B 1. Pre-Design	B 2. Accessibility	B 3. Sustainability	B 4. Site Design	B 5. Life Safety	B 6. Comprehensive Design	B 7. Finantial considerations	B 8. Environmental Systems	B 9. Structural Systems	B 10. Building Envelope Systems	B 11. Building Service Systems	B 12. Building Materials and Assemblies	C 1.Collaboration	C 2. Human Behavior	C 3. Client Role in Architecture	C 4. Project managment	C 5. Practice managment	C 6. Leadership	C 7. Legal Responsabilities	C 8. Ethics and Professional Judgment	C 9. Comunity and social responsability
Integrated Drawing workshop I		■	■																												
Integrated Drawing workshop II		■	■					■																							
Architectural drawing								■																							
Architectural geometry								■																							
Applied Mathematics					■																										
Process physics					■																										
Communication skills	■																														
Introduction to architecture and contemporary art							■																								
Construction I: Systems				■																											
Urban development basics															■									■							
Design Studio G1		■				■					■																				
Design Studio G2		■				■					■																				
Integrated Drawing workshop III			■					■																							
Integrated Drawing workshop IV			■		■																										
Structural mechanics																				■											
Structural analysis																															
Construction II: Materials				■																			■								
Conditioning techniques														■					■		■	■									
Architecture and art of the 20th and 21st centuries					■		■																								
Urban areas and sustainable design						■			■	■				■	■											■	■		■			
Design Studio G3		■				■																										■
Design Studio G4		■				■																										■
Integrated workshop I													■				■														
Integrated workshop II													■			■	■														
Structural dimensioning																				■											
History of art and architecture I							■																								
Urban planning						■				■					■																
Construction III: Structures																				■											
Building facilities											■								■			■									
Bussiness management																		■								■	■	■		■	■	
Design Studio G5		■				■						■																				
Design Studio G6		■				■			■			■																				
Project workshop: city									■	■		■		■	■										■				■		■
Construction IV: Envelope				■															■		■	■		■							
Technical systems		■		■	■						■									■	■	■	■								
General English	■																														
Deontology and values																		■								■	■	■		■	■	
Structures design and foundations																				■											
History of art and architecture II							■																								
Design Studio G7	■	■				■			■	■	■	■					■														
Professional internship																								■		■		■	■			
R&D+i Graphic expression R+D			■					■																							
Technology projects workshop				■	■																		■								
Land and landscape project														■	■																
Sustainability in the building environment													■	■					■		■	■			■	■					
Graduation project (Bachelor´s degree)		■				■										■	■														
Technology projects workshop M1 (Master´s degree)		■																													
Design worshop M1 (Master´s degree)		■									■																				
Elective 1 (Master´s degree): see elective matrix																															
Elective 2 (Master´s degree): see elective matrix																															
Graduation project (Master´s degree)	■					■							■				■														■

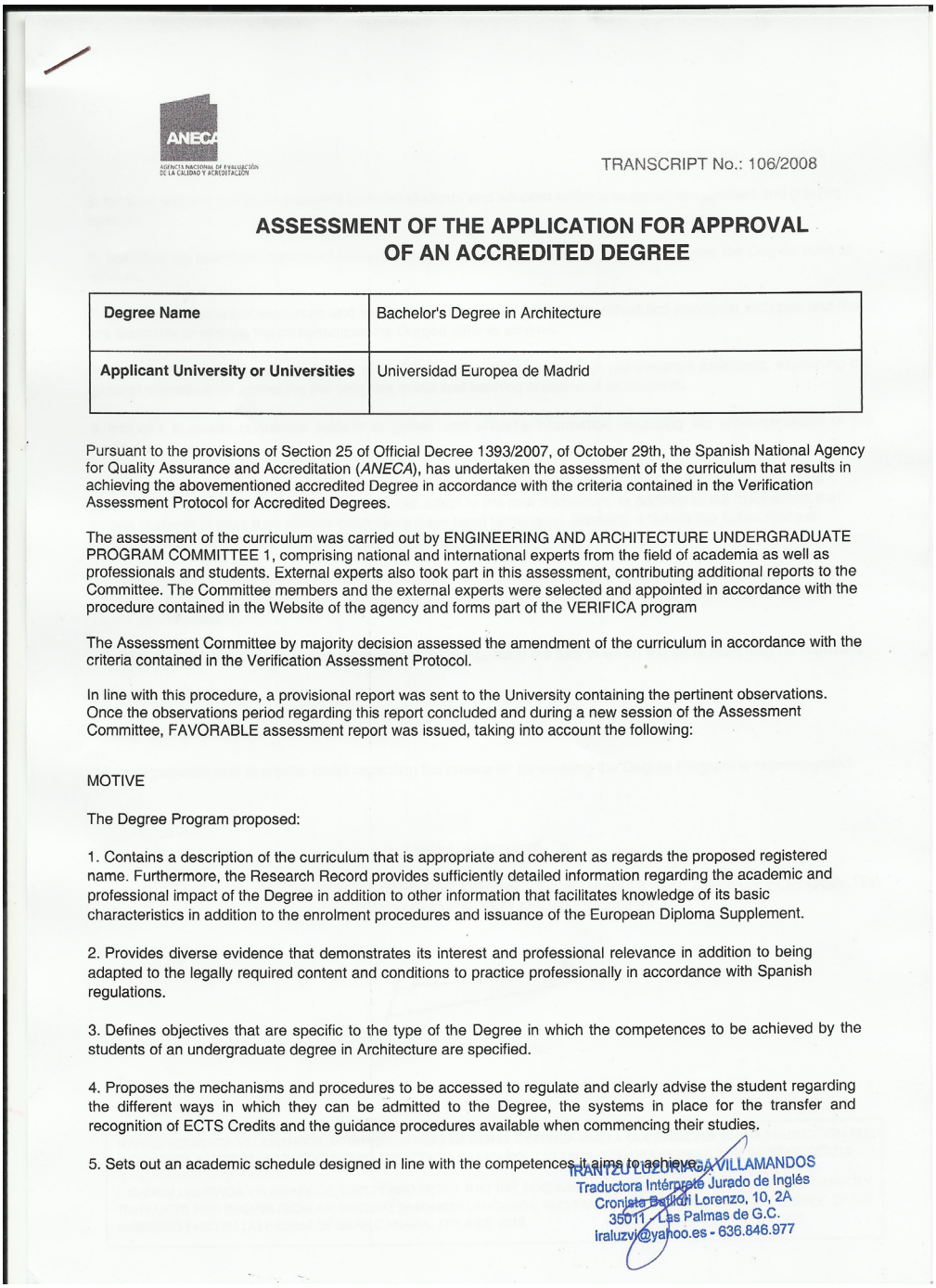
NAAB Student Performance Criteria. Master´s degree elective courses	A 1. Communication Skills	A 2. Design Thinking Skills	A 3. Visual Communication Skills	A-4. Tecnical Documentation	A 5. Investigative Skills	A 6. Fundamental Design Skills	A-7. Use of Precedents	A 8. Ordering Systems	A 9. Historical Traditions and Global culture	A 10. Cultural Diversity	A 11. Applied research	B 1. Pre-Design	B 2. Accessibility	B 3. Sustainability	B 4. Site Design	B 5. Life Safety	B 6. Comprehensive Design	B 7. Finantial considerations	B 8. Environmental Systems	B 9. Structural Systems	B 10. Building Envelope Systems	B 11. Building Service Systems	B 12. Building Materials and Assemblies	C 1.Collaboration	C 2. Human Behavior	C 3. Client Role in Architecture	C 4. Project managment	C 5. Practice managment	C 6. Leadership	C 7. Legal Responsabilities	C 8. Ethics and Professional Judgment	C 9. Comunity and social responsability
urbanism and administration															■			▒														
industrialized construction					▒	▒														▒	■		■									
space technology and conception in music						▒					■																					
comprehensive rehabilitation								▒					▒																		▒	
advanced structural calculus				■																▒			■									
mechanics of ancient structures: masonry and wood				■																■												
structural typology																																
bioclimatic and bio-kinetic architecture														■					■		■											■
energy optimization of conventional facilities														■								■										
foundations of construction management																		■							▒		■	■	■	▒	▒	■	
introduction to real estate valuation in real estate and financial markets																		■									▒	■	■	■		
project management																		▒							▒		■	▒	▒	■	■	■	▒
security and prevention management																■																
exhibition and multimedia project management	■		■					▒																								
art, music and literature					■				▒																							
cartography of architecture and contemporary art							▒		■		■																					
architecture and art in texts							■		▒		▒																					
archeology of architecture							■		■		■																					
communication strategies, multimedia design and gr ic pr ction	■		■		■	■																										
architecture and land										▒				▒	■																	
urban calligraphy										■					▒																	
mega-cities and urban agglomerations; introduction to basic occupancy										■			■		■												■					■
urban rehabilitation						▒				▒			■	▒	▒												■					
digital urban planning						■		■			■																					
scientific research methods											■																					
information processing: information management											▒																					

I.2. Curricular Framework

II.2.1. Regional Accreditation

Copy of the most recent letter from the regional accrediting commission/agency regarding the institution's term of accreditation.

- **Bachelor´s Degree in Architecture, 2008 curricular program**



ANECA
AGENCIA NACIONAL DE EVALUACIÓN DE LA CALIDAD Y ACREDITACIÓN

TRANSCRIPT No.: 106/2008

ASSESSMENT OF THE APPLICATION FOR APPROVAL OF AN ACCREDITED DEGREE

Degree Name	Bachelor's Degree in Architecture
Applicant University or Universities	Universidad Europea de Madrid

Pursuant to the provisions of Section 25 of Official Decree 1393/2007, of October 29th, the Spanish National Agency for Quality Assurance and Accreditation (*ANECA*), has undertaken the assessment of the curriculum that results in achieving the abovementioned accredited Degree in accordance with the criteria contained in the Verification Assessment Protocol for Accredited Degrees.

The assessment of the curriculum was carried out by ENGINEERING AND ARCHITECTURE UNDERGRADUATE PROGRAM COMMITTEE 1, comprising national and international experts from the field of academia as well as professionals and students. External experts also took part in this assessment, contributing additional reports to the Committee. The Committee members and the external experts were selected and appointed in accordance with the procedure contained in the Website of the agency and forms part of the VERIFICA program

The Assessment Committee by majority decision assessed the amendment of the curriculum in accordance with the criteria contained in the Verification Assessment Protocol.

In line with this procedure, a provisional report was sent to the University containing the pertinent observations. Once the observations period regarding this report concluded and during a new session of the Assessment Committee, FAVORABLE assessment report was issued, taking into account the following:

MOTIVE

The Degree Program proposed:

1. Contains a description of the curriculum that is appropriate and coherent as regards the proposed registered name. Furthermore, the Research Record provides sufficiently detailed information regarding the academic and professional impact of the Degree in addition to other information that facilitates knowledge of its basic characteristics in addition to the enrolment procedures and issuance of the European Diploma Supplement.

2. Provides diverse evidence that demonstrates its interest and professional relevance in addition to being adapted to the legally required content and conditions to practice professionally in accordance with Spanish regulations.

3. Defines objectives that are specific to the type of the Degree in which the competences to be achieved by the students of an undergraduate degree in Architecture are specified.

4. Proposes the mechanisms and procedures to be accessed to regulate and clearly advise the student regarding the different ways in which they can be admitted to the Degree, the systems in place for the transfer and recognition of ECTS Credits and the guidance procedures available when commencing their studies.

5. Sets out an academic schedule designed in line with the competences it aims to achieve.

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Traductora Intérprete Jurado de Inglés
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ANECA
AGENCIA NACIONAL DE EVALUACIÓN DE LA CALIDAD Y ACREDITACIÓN

TRANSCRIPT No.: 106/2008

in keeping with the workload expected from the students and adapted to the anticipated assessment and grading systems.

6. Specifies the academic personnel and support staff necessary to acquire the competences the Degree aims to achieve.

7. Specifies the physical resources and services required to developed the scheduled academic activities and that are adequate to acquire the competences the Degree aims to achieve.

8. Establishes the anticipated outcome of the Degree Program in terms of performance indicators, explaining the general procedure for assessing the progress made and learning outcome of its students.

9. Includes a quality guarantee system to gather and analyze information regarding the implementation of the curriculum.

10. Identifies an academic calendar that is appropriate for the implementation of the Degree and specifies the form in which the students of existing studies can adapt to the new curriculum, in addition to the mechanism that allows students to pass their studies once these have been terminated. Similarly, it details the tuition that will cease to be offered with the implementation of the Degree.

A favorable report regarding the curriculum is subject to the presentation and defense of the graduation project once 300 ECTS Credits have been achieved and before a panel established in accordance with Ministerial Order ECI/3856/2007.

In addition, it proposes the following recommendations regarding the way in which the curriculum may be improved.

RECOMMENDATIONS:

Quality Guarantee System:

More explanation and in greater detail regarding the criteria for terminating the Degree Program is recommended.

In Madrid, on 07/01/2008

DIRECTOR OF THE SPANISH NATIONAL AGENCY FOR QUALITY ASSURANCE AND ACCREDITATION

Gemma Rauret Dalmau

IRANTZU LUZURIAGA VILLAMANDOS, INTÉRPRETE JURADO DE INGLÉS, CERTIFICA QUE LA QUE ANTECEDE ES UNA TRADUCCIÓN FIEL Y COMPLETA **AL INGLÉS** DE UN DOCUMENTO REDACTADO EN **ESPAÑOL**. LAS PALMAS DE GRAN CANARIA, **17 DE JUNIO DE 2013**.

I, IRANTZU LUZURIAGA VILLAMANDOS, CERTIFY AND TESTIFY, THAT THIS DOCUMENT IS A FAITHFUL COPY AND HAS BEEN CORRECTLY TRANSLATED INTO **ENGLISH** FROM AN ORIGINAL IN **SPANISH** LANGUAGE, AND THAT THIS DOCUMENT IS ISSUED BY REQUEST OF THE INTERESTED PARTY AT LAS PALMAS DE GRAN CANARIA, **17TH JUNE, 2013**.

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- **Bachelor´s Degree in Fundamentals of Architecture, 2011 curricular program**

DATE: 07/11/2011
TRANSCRIPT No.: 106/2008
DEGREE ID: 2500126

ASSESSMENT REGARDING THE PROPOSAL FOR

CURRICULA AMENDMENT

Degree Name	Bachelor's Degree in Fundamentals of Architecture
Applicant University	Universidad Europea de Madrid
Participating University(ies)	Universidad Europea de Madrid
Center(s)	• School of Architecture • Centro de Educación Superior Valencia (The Higher Education Center of Valencia)
Field of Knowledge	Engineering and Architecture

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The Governing Council of Universities has submitted the curricula AMENDMENT application for this already approved accredited degree to the Spanish National Agency for Quality Assurance and Accreditation (*ANECA*). This application has been submitted under the terms of Section 28 of Official Decree 1393/2007, amended by Official Decree 861/2010 that establishes the procedure for amending already approved curricula.

An Assessment Committee comprising national and international experts from the field of academia as well as professionals and students carried out the assessment of this curricula amendment. The Committee members were selected and appointed in accordance with the procedure contained in the Website of the agency and forms part of the VERIFICA program.

This Assessment Committee by majority decision assessed the amendment of the curriculum in accordance with the criteria contained in the Verification Assessment Protocol.

Having examined the amendment application, the Assessment Committee issued a FAVORABLE assessment report taking into account the following:

OBSERVATIONS

This report solely assesses the elements indicated in the amendment application submitted via the electronic portal of the Ministry of Education. It does not take into account those aspects that the University has modified in the research record and that have not been highlighted in the amendment application.

OBSERVATIONS FOR THE GOVERNING COUNCIL OF UNIVERSITIES:

This amendment was assessed under Order EDU/2075/2010 as regards that which refers to Undergraduate programs.

The elements taken into consideration in the amendment application are as follows: the change of registered name of the degree, the Bachelor's Degree in Architecture from Universidad Europea de Madrid to the Bachelor's Degree in Fundamentals of Architecture from Universidad Europea de Madrid; the adaptation of its curriculum to the new legislative framework (Order EDU/2075/2010 and Official Decree 861/2010); adjustment to any obligatory requirements for the new undergraduate degree. Tuition will cease to be given in respect of the degree program of the Bachelor's Degree in Architecture.

MOTIVE

The proposed Amendment to the Accredited Degree does not involve changes that may affect its nature and objectives.

It is noted that students that have enrolled for a Bachelor's Degree in Architecture under the provisions of legal regulations of ORDER ECI/3856/2007 will have the right to continue to follow their curriculum under the same conditions with which they commenced their studies and achieve the regulated profession of Architect through this Bachelor's Degree.

The change in registered name of the center responsible that will from now on be called the School of Architecture at Universidad Europea de Madrid, shall be notified to the Autonomous Community and to the Ministry of Education so that the RUCT (Register of Universities, Centers and Degrees) can be modified.

In Madrid, on 07/11/2011:

DIRECTOR OF THE SPANISH NATIONAL AGENCY
FOR QUALITY ASSURANCE AND ACCREDITATION

Zulima Fernández Rodríguez

Page 3 of 3

IRANTZU LUZURIAGA VILLAMANDOS, INTÉRPRETE JURADO DE INGLÉS, CERTIFICA QUE LA QUE ANTECEDE ES UNA TRADUCCIÓN FIEL Y COMPLETA **AL INGLÉS** DE UN DOCUMENTO REDACTADO EN **ESPAÑOL**. LAS PALMAS DE GRAN CANARIA, **17 DE JUNIO DE 2013**.

I, IRANTZU LUZURIAGA VILLAMANDOS, CERTIFY AND TESTIFY, THAT THIS DOCUMENT IS A TRUE AND HAS BEEN CORRECTLY TRANSLATED INTO **ENGLISH** FROM AN ORIGINAL IN **SPANISH** LANGUAGE, AND THAT THE DOCUMENT ISSUED BY REQUEST OF THE INTERESTED PARTY AT LAS PALMAS DE GRAN CANARIA, **17TH JUNE, 2013**.

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- **Master´s Degree in Architecture, 2011 curricular program**

DATE: 02/27/2012

ACADEMIC TRANSCRIPT No.: 4683/2011

DEGREE ID: 4313071

ASSESSMENT OF THE APPLICATION FOR RECOGNITION OF AN ACCREDITED CURRICULUM

Degree Name	Master's Degree in Architecture from Universidad Europea de Madrid
Applicant University	Universidad Europea de Madrid
Participating University(ies)	Universidad Europea de Madrid
Center(s)	• School of Architecture (VILLAVICIOSA DE ODÓN) • The Higher Education Center of Valencia (VALENCIA)
Field of Knowledge	Engineering and Architecture

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Pursuant to the provisions of Section 25 of Official Decree 1393/2007 of October 29th, modified by Official Decree 861/2010 of July 2nd, ANECA, the Spanish National Agency for Quality Assurance and Accreditation, has proceeded to assess the curriculum that leads to achieving the above-mentioned Accredited Degree.

The assessment of the curriculum was undertaken by the Assessment Committees, comprising national and international experts from the field of academia, professionals and students from the corresponding degree. The members of the Committees were selected and appointed in accordance with the procedure contained on the Website of the agency as part of the VERIFICA program.

These Assessment Committees, as a group, have assessed the curriculum in accordance with the criteria contained in the assessment protocol for recognition.

Pursuant to this procedure, a report was sent to the University that has submitted any opportune comments, as applicable. Once the period for submitting comments on this report finalized, the Assessment Committees, in a new session, issues a FAVORABLE assessment report, taking into account that:

OBSERVATIONS FOR THE GOVERNING COUNCIL OF UNIVERSITIES

This degree has been assessed taking into account Ministerial Order EDU/2075/2010 that establishes the requirements for the Recognition of accredited university degrees that qualify its holder to work professionally as an Architect.

MOTIVATION:

The proposed Accredited Degree complies with the assessment requirements in accordance with the provisions of Official Decree 1393/2007 amended by Official Decree 861/2010.

Madrid, on 02/27/2012:

THE DIRECTOR OF ANECA

Zulima Fernández Rodríguez

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IRANTZU LUZURIAGA VILLAMANDOS, INTÉRPRETE JURADO DE INGLÉS, CERTIFICA QUE LA QUE ANTECEDE ES UNA TRADUCCIÓN FIEL Y COMPLETA **AL INGLÉS** DE UN DOCUMENTO REDACTADO EN **ESPAÑOL**. LAS PALMAS DE GRAN CANARIA, **11 DE JUNIO DE 2014**.

I, IRANTZU LUZURIAGA VILLAMANDOS, CERTIFY AND TESTIFY, THAT THIS DOCUMENT IS A FAITHFUL COPY AND HAS BEEN CORRECTLY TRANSLATED INTO **ENGLISH** FROM AN ORIGINAL IN **SPANISH** LANGUAGE, AND THAT THIS DOCUMENT IS ISSUED BY REQUEST OF THE INTERESTED PARTY AT LAS PALMAS DE GRAN CANARIA, **11TH JUNE, 2014**.

II.2.2. Professional Degrees and Curriculum

Title(s) of the degree(s) offered including any pre-requisite degree(s) or other preparatory education and the total number of credits earned for the NAAB-accredited degree or track for completing the NAAB-accredited degree.

Bachelor's Degree in Fundamentals of Architecture (300 ECTS pre-professional degree)

Bachelor's Degree in Fundamentals of Architecture (path for Building engineers, pre-professional degree)

Double degree: Bachelor's Degree in Fundamentals of Architecture and Bachelor's Degree in Art (pre-professional degree)

Double degree: Bachelor's Degree in Fundamentals of Architecture and Bachelor's Degree in Design (pre-professional degree)

Master's Degree in Architecture (60 ECTS professional degree)

Bachelor's Degree in Architecture (300 ECTS professional degree)

An outline, for each accredited degree program offered or track for completing the NAAB-accredited degree, of the curriculum showing the distribution of general studies, required professional courses (including prerequisites), required courses, professional electives, and other electives.

Bachelor's Degree in Fundamentals of Architecture (300 ECTS pre-professional degree).

The NAAB requirement says that substantially equivalent degree programs must include general studies, professional studies, and electives. **General studies courses** amount to 60 ECTS credits (20% of the program credits): 54 ECTS of general studies are compulsory, and 6 ECTS of general studies correspond to an **elective course.** The professional studies courses represent 240 ECTS (80% of the program credits). In the following part we justify the profile of the general studies courses:

Applied Mathematics (6 ECTS) and **Physics** (6 ECTS). These are SCIENCE courses. See Supplemental part 4: course descriptions

Business management (6 ECTS). This is an ECONOMIC SCIENCE course (examples of content: Business World, Legislation, Financial and Accounting Mathematics, Business Responsibility, etc.). See Supplemental part 4: course descriptions

Communication skills (6 ECTS) and **English** (6 ECTS). These are SOCIAL SCIENCE-LANGUAGE courses. See Supplemental part 4: course descriptions

Integrated drawing workshop I (6 ECTS) and **Integrated drawing workshop II** (6 ECTS). These are ARTS courses. These drawing workshops are more artistic than architectural. The drawing tools are manual or digital. Some of the topics they cover are: Analysis and theory of form, Perception and composition, Design process, Image management, Representation and form analysis, Visual, graphic and compositional language. The NAAB team will be able to see the exercises from these courses in the team room. Integrated drawing workshops III and IV are more architectural, and so these courses are professional study courses.

Introduction to contemporary architecture and art (6 ECTS), **Architecture and art of the 20th and 21th centuries** (6 ECTS), **History of art and architecture I** (6 ECTS) and **History of art and**

architecture II (6 ECTS). All these courses (24 ECTS credits) have 50% of their credits and content exclusively devoted to HISTORY OF ART. **Therefore, 12 ECTS credits correspond to general studies (HISTORY OF ART)** and the remaining 12 ECTS credits are professional studies (HISTORY OF ARCHITECTURE).

Elective (6 ECTS). The program has modified its curriculum since visit 2 and has asked the Spanish Ministry for permission to add an elective course. The profile of this elective course is non-professional; it is a general study course. It is related to HUMANITIES (Philosophy or Sociology) or to University activities (non-architectural activities). The name and the content of these electives are not official yet, but will probably be official by the time of visit 3 of the NAAB team.

The addition of all the general study courses are 60 ECTS credits (20% of the program credits) General studies, professional studies, and electives are defined in the following matrix:

1st Academic year	Applied mathematics 6 ECTS **UCR**	Communication Skills 6 ECTS **UCR**	Introduction to contemporary architecture and art 6 ECTS **UCR**	Architectural Drawing 6 ECTS **UCR**	Integrated Drawing workshop I 6 ECTS **UCR**
	Process Physics 6 ECTS **UCR**	Construction I: systems 6 ECTS **DR**	Urban development basics 6 ECTS **DR**	Architectural Geometry 6 ECTS **DR**	Integrated Drawing workshop II 6 ECTS **DR**
2nd Academic year	Structural mechanics 6 ECTS **UCR**	Construction II: materials 6 ECTS **DR**	Architecture and Art of the 20th and 21st Centuries 6 ECTS **DR**	Integrated Drawing workshop III 6 ECTS **DR**	Design Studio G1 6 ECTS **DR**
	Conditioning techniques 6 ECTS **DR**	Structural analysis 6 ECTS **DR**	Urban areas and sustainable design 6 ECTS **DR**	Integrated Drawing workshop IV 6 ECTS **DR**	Design Studio G2 6 ECTS **DR**
3rd Academic year	Building Facilities 6 ECTS **DR**	Business Management 6 ECTS **UCR**	Urban Planning 6 ECTS **DR**	Integration workshop I 6 ECTS **DR**	Design Studio G3 6 ECTS **DR**
	Construction III: structures 6 ECTS **DR**	Structural dimensioning 6 ECTS **DR**	History of Art and Architecture I 6 ECTS **DR**	Integration workshop II 6 ECTS **DR**	Design Studio G4 6 ECTS **DR**
4th Academic year	Construction IV: envelope 6 ECTS **DR**	General English 6 ECTS **UCR**	History of Art and Architecture II 6 ECTS **DR**	Project workshop: City 6 ECTS **DR**	Design Studio G5 6 ECTS **DR**
	Technical systems 6 ECTS **DR**	Structural and design and foundations 6 ECTS **DR**	Deontology and values 6 ECTS **UCR**	Design Studio G6 12 ECTS **DR**	
5th Academic year	Internship I 6 ECTS **PI**	Elective 6 ECTS **PI**	Sustainability in the building environment 6 ECTS **DR**	Design Studio G7 12 ECTS **DR**	
	Technology projects workshop 6 ECTS **DR**	R&D+i Graphic expression 6 ECTS **DR**	Land and landscape project 6 ECTS **DR**	Bachelor´s degree graduation project 12 ECTS **GP**	

PROFESSIONAL DEGREE

Full General studies courses **48 ECTS credits**

Partial General studies courses (**50% Art**, 50% Architecture) 24 ECTS: **12 ECTS credits ART**

Elective course **6 ECTS** (Non professional)

Professional studies courses **234 ECTS**

According to Spanish law, the Curricular program is 60 ECTS University core requirement courses (similar concept to the USA general studies; these courses are common in all the engineering and architecture programs and considered basic: they could be architectural or non-architectural), 216 ECTS Degree requirement courses, 12 ECTS professional internship courses and 12 ECTS Graduation project course.

1st Academic year	Applied mathematics 6 ECTS **UCR**	Communication Skills 6 ECTS **UCR**	Introduction to contemporary architecture and art 6 ECTS **UCR**	Architectural Drawing 6 ECTS **UCR**	Integrated Drawing workshop I 6 ECTS **UCR**
	Process Physics 6 ECTS **UCR**	Construction I: systems 6 ECTS **DR**	Urban development basics 6 ECTS **DR**	Architectural Geometry 6 ECTS **DR**	Integrated Drawing workshop II 6 ECTS **DR**
2nd Academic year	Structural mechanics 6 ECTS **UCR**	Construction II: materials 6 ECTS **DR**	Architecture and Art of the 20th and 21st Centuries 6 ECTS **DR**	Integrated Drawing workshop III 6 ECTS **DR**	Design Studio G1 6 ECTS **DR**
	Conditioning techniques 6 ECTS **DR**	Structural analysis 6 ECTS **DR**	Urban areas and sustainable design 6 ECTS **DR**	Integrated Drawing workshop IV 6 ECTS **DR**	Design Studio G2 6 ECTS **DR**
3rd Academic year	Building Facilities 6 ECTS **DR**	Business Management 6 ECTS **UCR**	Urban Planning 6 ECTS **DR**	Integration workshop I 6 ECTS **DR**	Design Studio G3 6 ECTS **DR**
	Construction III: structures 6 ECTS **DR**	Structural dimensioning 6 ECTS **DR**	History of Art and Architecture I 6 ECTS **DR**	Integration workshop II 6 ECTS **DR**	Design Studio G4 6 ECTS **DR**
4th Academic year	Construction IV: envelope 6 ECTS **DR**	General English 6 ECTS **UCR**	History of Art and Architecture II 6 ECTS **DR**	Project workshop: City 6 ECTS **DR**	Design Studio G5 6 ECTS **DR**
	Technical systems 6 ECTS **DR**	Structural and design and foundations 6 ECTS **DR**	Deontology and values 6 ECTS **UCR**	Design Studio G6 12 ECTS **DR**	
5th Academic year	Internship I 6 ECTS **PI**	Internship II 6 ECTS **PI**	Sustainability in the building environment 6 ECTS **DR**	Design Studio G7 12 ECTS **DR**	
	Technology projects workshop 6 ECTS **DR**	R&D+i Graphic expression 6 ECTS **DR**	Land and landscape project 6 ECTS **DR**	Bachelor´s degree graduation project 12 ECTS **GP**	

Credit structure	
University core requirement courses UCR	**60 ECTS**
Degree Requirement courses DR	**216 ECTS**
Professional internship PI	**12 ECTS**
Graduation project GP	**12 ECTS**
TOTAL ECTS	**300 ECTS**

Master's Degree in Architecture (60 ECTS professional degree). The Curricular program is 20 ECTS Degree requirement courses, 10 ECTS Elective courses and 30 ECTS Graduation project course.

6th Academic year	Required elective 1 6 ECTS	Required elective 2 4 ECTS	Technology projects workshop M1 8 ECTS	Design Studio M1 12 ECTS
	Master´s degree graduation project 30 ECTS			

Credit structure	
Degree Requirement courses DR	**20 ECTS**
Required elective RE	**10 ECTS**
Graduation project GP	**30 ECTS**
TOTAL ECTS	**60 ECTS**

Bachelor's Degree in Architecture (300 ECTS professional degree). General studies, professional studies, and electives, which are defined in the following matrix:

1st Academic year	Image analysis, contemporary art and architecture 6 ECTS	Language and Communication 6 ECTS	Applied mathematics 6 ECTS	Geometrical and architectural representation systems 6 ECTS	Two dimensional representation workshop 6 ECTS
	Contextualized History of Architecture 6 ECTS	Constructive systems 6 ECTS	Genesis of form 6 ECTS	Expressive techniques and analytic representation systems 6 ECTS	Three dimensional representation workshop&image management 6 ECTS

2nd Academic year	Structural Physics 6 ECTS	General English 6 ECTS	Models and prototypes 6 ECTS	Anthropometrics, sociology and ergonometrics 6 ECTS	Anthropometric scale project workshop 6 ECTS
	Process Physics 6 ECTS	Structural systems 6 ECTS	Drawing space and information 6 ECTS	Principles of Urban planning 6 ECTS	Local intermediate scale project workshop 6 ECTS
3rd Academic year	Structural dimensioning I 6 ECTS	Materials and components 6 ECTS	Deontology and values 6 ECTS	Business Management 6 ECTS	Integrated intermediate scale project workshop 6 ECTS
	Soils and foundations 6 ECTS	Envelope systems 6 ECTS	Architectural criticism and the modern and contemporary city 6 ECTS	Building services I 6 ECTS	Medium and large scale project workshop 6 ECTS
4th Academic year	Building services II 6 ECTS	Technical systems I 6 ECTS	Urban areas and sustainable design 6 ECTS	City scale project workshop 6 ECTS	Architectural and urban design strategies 6 ECTS
	Structural dimensioning II 6 ECTS	Industrialization and constructive process 6 ECTS	Architectural research and criticism 6 ECTS	City Planning 6 ECTS	Global scale project workshop 6 ECTS
5th Academic year	Professional internship 6 ECTS	Technical systems II 6 ECTS	Required elective 1 6 ECTS	Required elective 2 6 ECTS	Specialized global scale project workshop 6 ECTS
	Bachelor´s degree graduation project 30 ECTS				

PROFESSIONAL DEGREE

Full General studies courses **54 ECTS credits**

Partial General studies courses (**50% Art**, 50% Architecture) 24 ECTS: **12 ECTS credits ART**

Elective course **12 ECTS**

Professional studies courses **222 ECTS**

According to Spanish law, The Curricular program is 60 ECTS University core requirement courses, 192 ECTS Degree requirement courses, 6 ECTS professional internship courses, 12 ECTS Elective courses and 30 ECTS Graduation project course.

1st Academic year	Image analysis, contemporary art and architecture 6 ECTS	Language and Communication 6 ECTS	Applied mathematics 6 ECTS	Geometrical and architectural representation systems 6 ECTS	Two dimensional representation workshop 6 ECTS
	Contextualized History of Architecture 6 ECTS	Constructive systems 6 ECTS	Genesis of form 6 ECTS	Expressive techniques and analytic representation systems 6 ECTS	Three dimensional representation workshop&image management 6 ECTS
2nd Academic year	Structural Physics 6 ECTS	General English 6 ECTS	Models and prototypes 6 ECTS	Anthropometrics, sociology and ergonometrics 6 ECTS	Anthropometric scale project workshop 6 ECTS
	Process Physics 6 ECTS	Structural systems 6 ECTS	Drawing space and information 6 ECTS	Principles of Urban planning 6 ECTS	Local intermediate scale project workshop 6 ECTS
3rd Academic year	Structural dimensioning I 6 ECTS	Materials and components 6 ECTS	Deontology and values 6 ECTS	Business Management 6 ECTS	Integrated intermediate scale project workshop 6 ECTS
	Soils and foundations 6 ECTS	Envelope systems 6 ECTS	Architectural criticism and the modern and contemporary city 6 ECTS	Building services I 6 ECTS	Medium and large scale project workshop 6 ECTS
4th Academic year	Building services II 6 ECTS	Technical systems I 6 ECTS	Urban areas and sustainable design 6 ECTS	City scale project workshop 6 ECTS	Architectural and urban design strategies 6 ECTS
	Structural dimensioning II 6 ECTS	Industrialization and constructive process 6 ECTS	Architectural research and criticism 6 ECTS	City Planning 6 ECTS	Global scale project workshop 6 ECTS
	Professional internship 6 ECTS	Technical systems II 6 ECTS	Required elective 1 6 ECTS	Required elective 2 6 ECTS	Specialized global scale project workshop 6 ECTS
	Bachelor´s degree graduation project 30 ECTS				

Credit structure	
University core requirement courses UCR	**60 ECTS**
Degree Requirement courses DR	**192 ECTS**
Required Elective RE	**12 ECTS**
Professional internship PI	**6 ECTS**

Graduation project GP	**30 ECTS**
TOTAL ECTS	**300 ECTS**

Examples, for each accredited degree offered or track for completing the NAAB-accredited degree, of the minors or concentrations students may elect to pursue.

The different programs offer different Elective courses (12 ECTS): however, we cannot say that this 12 ECTS course is a minor, or at least the student does not hold a specific minor degree.

The students can develop a specialty in any field by doing a graduate program (Master's Degree or Certificate Courses) once they have graduated.

List of the minimum number of semester credit hours or the equivalent number of quarter credit hours required for each semester or quarter, respectively.

The academic year has three trimesters or terms:

- T1: First trimester-Fall term (September-December):24 ECTS, 4 courses (288 class hours)
- T2: Second trimester: Winter term (January-March):18 ECTS, 3 courses (216 class hours)
- T3: Third trimester-Spring term (April-June):18 ECTS, 3 courses (216 class hours)

The first trimester is longer than the other two, which is why students take more credits then.
60 ECTS credits per year (24 ECTS in T1, 18 ECTS in T2, 18 ECTS in T3) are recommended. The School allows a maximum of 72 ECTS to be taken in one academic year.

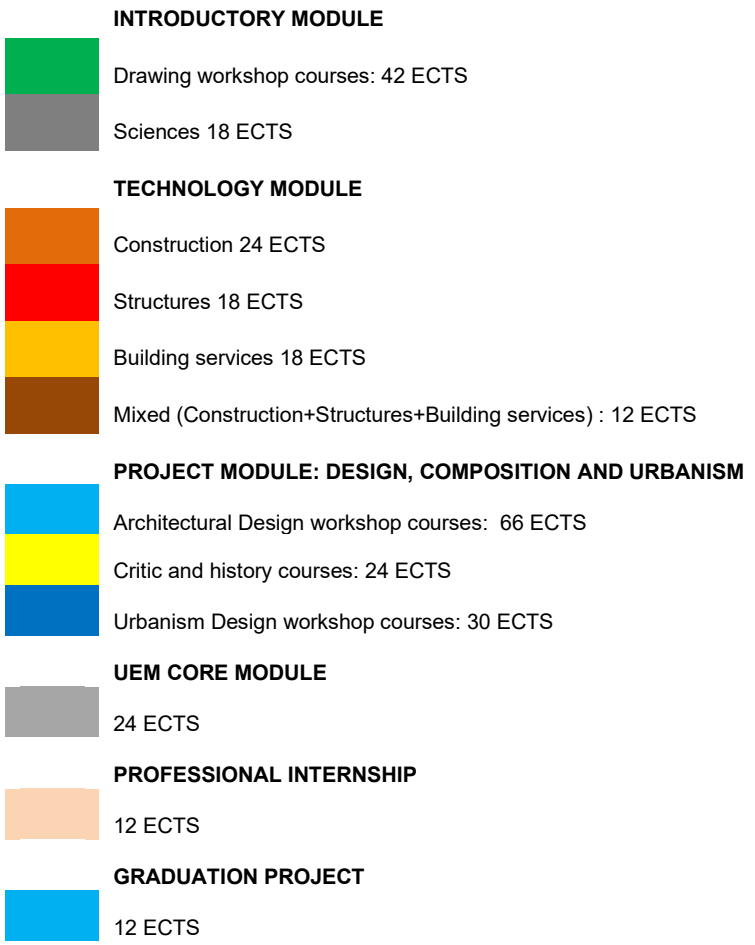
The School offers Design Studios in the second and third trimester: the students focus on architectural projects then, as they have one project design studio plus only two more courses per trimester.

List identifying the courses and their credit hours required for professional content and the courses and their credit hours required for general education for each accredited degree program offered or track for completion of the NAAB-accredited degree.

Bachelor's Degree in Fundamentals of Architecture (2011 curricular program).

- **General Studies**. At least 20% of the credits in the professional architecture degree are not architecture-related (arts, humanities, and sciences), either being general studies or electives. In our program there are 60 ECTS credits (20% of the 300 ECTS credits of the program). To raise the 30% of the credits of general studies, the program requires as an admission requirement the completion of 96 ECTS credits of general studies at Tertiary School (see Response from Program [2014]: II.2.2 Professional Degrees and Curriculum)
- **Professional Studies**. All the required courses satisfy the NAAB Student Performance Criteria (SPC). Our program has 240 ECTS credits of professional studies.
- **Electives**. The program has increased the number of elective courses. There were two elective courses in the Master's Degree (10 ECTS credits), and since the last visit the program has added **one more liberal arts elective** (6 ECTS credits) to the undergraduate program.

There are 5 modules: **Introductory module** (sciences and drawing): **60 ECTS, Technical module (construction, services, structures and mixed): 72 ECTS, Project module** (projects, composition, urbanism): **120 ECTS, UEM Core module** (languages, management): **24 ECTS.** Besides, there are the **Professional internship** courses **12 ECTS** and the **Graduation project 12 ECTS**.



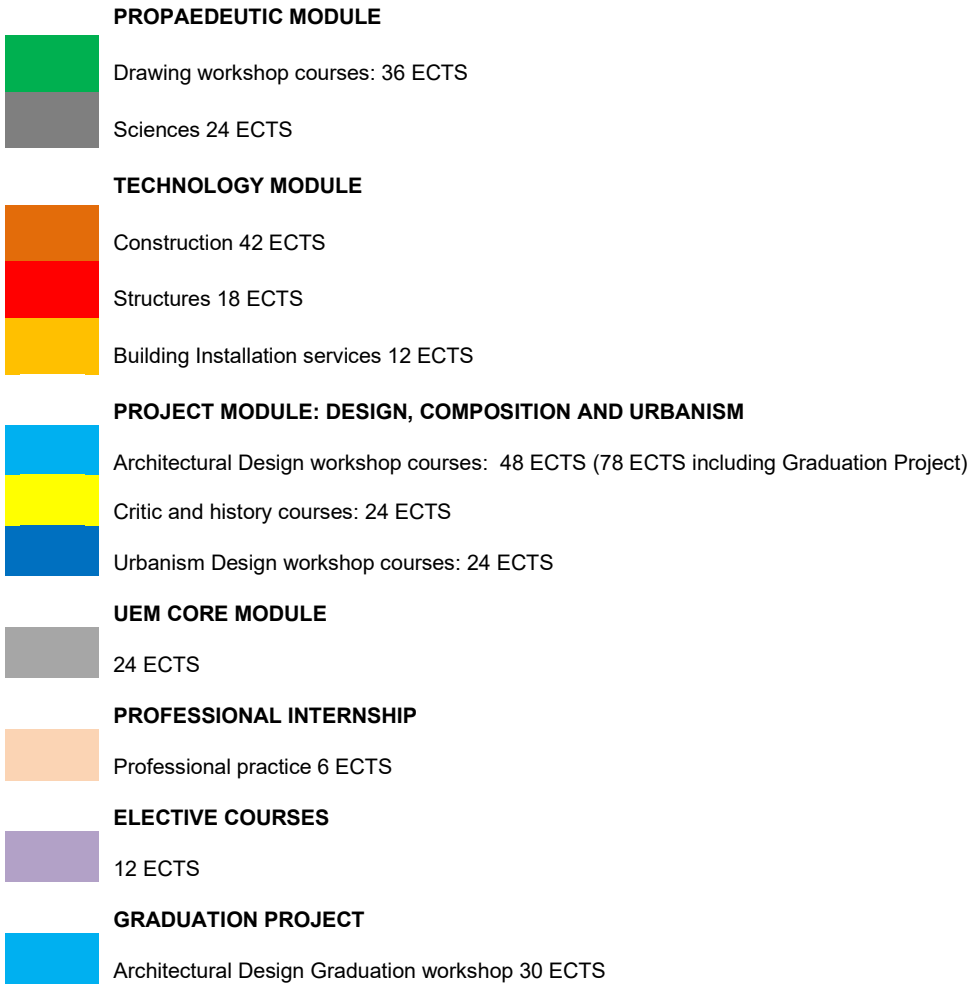
Bachelor's Degree in Architecture (2008 curricular program).

- **General Studies**. At least 22% of the credits in the professional architecture degree are not architecture-related (arts, humanities, and sciences), either being general studies or electives. In our program there are 66 ECTS credits (20% of the 300 ECTS credits of the program). To raise the 30% of the credits of general studies, the program requires as an admission requirement the completion of 96 ECTS credits of general studies at Tertiary School (see Response from Program [2014]: II.2.2 Professional Degrees and Curriculum)

- **Professional Studies**. All the required courses satisfy the NAAB Student Performance Criteria (SPC). Our program has 236 ECTS credits of professional studies.

- **Electives**. The program has increased the number of elective courses. There are two elective courses in the undergraduate program.

There are 5 modules: **Propaedeutic module** (sciences and drawing): **60 ECTS, Technical module (construction, services, structures): 72 ECTS, Project module** (projects, composition, urbanism): **126 ECTS, UEM Core module** (languages, management): **24 ECTS.** Besides, there are the **Professional internship** courses **6 ECTS** and the **Graduation project 30 ECTS**.



A list of off-campus programs, description of facilities and resources, course requirements, and length of stay.

- AEDES Berlin workshop. 1 ECTS. 1 week
- AA Visiting School. 4 credits. 2 weeks
- IFAC 2013. 1 ECTS. 1 week.

II.2.3. Curriculum Review and Development

Description of the composition of the program's curricular review process including membership of any committees or panels charged with responsibility for curriculum assessment, review, and development and the role of the curriculum review process relative to long-range planning and self-assessment.

There is an academic committee for the curricular program, whose members are the academic year coordinators (see point I.1.4 continuous improvement: page 40) which is in charge of monitoring the curricular plan, and meets and works together with the Academic Director.

The academic committee have several meetings. Items such as the evaluation sub-committees, the integration activities, the topic of the year, the course coordinator of the course etc., were addressed by this committee.

The committee's conclusions were communicated to the School's faculty board, which approved the proposals and shared them with the program coordinator.

The evaluation subcommittees meet at the end of the trimester (three times a year) and give their conclusions to the Dean, the Academic Director and the Program Manager. There are 5 evaluation sub-committees, one for each academic year group (1st to 5th). The participants at these meetings are: the academic year course coordinator and the different course coordinators.

Twice a year, there is a meeting between the student representatives, the Student Service Director, the Dean and the Academic Director. This panel gives a lot of information and suggestions to the managers of the School and the program coordinator.

Besides, there are several meetings between the Dean, the Academic Director, the Student Service Director and the Program Manager, for the final conclusions of the program follow-up. At this annual meeting there is an analysis of self-assessment and long-range planning actions are established.

II.3. Evaluation of Preparatory/Pre-professional Education

Description of the process by which the preparatory or pre-professional education of students admitted to the accredited program is evaluated. This description should include the process for verifying general education credits, professional credits and, where appropriate, the basis for granting "advanced standing." These are to be documented in a student's admissions and advising record (See also I.2.1).

By virtue of the entry into force of Royal Decree 1393/2007, of October 29, the Act governing accredited university courses, Universidad Europea de Madrid, makes these general regulations for official bachelor's degrees public.

Section I: On admission of students
Art. 1.

Once students have been notified that they have been admitted to Universidad Europea de Madrid, they will be considered as such once they have carried out the corresponding admission procedures and have formalized their enrollment. To do so, they will have to provide documentary proof of having passed the University Entrance Exams, any other tests that enable admission into the university, qualifications and all

other requirements necessary under current legislation.

Art. 2.
First year students must enroll in all those credits stipulated for their course set out in the syllabus.

Art. 3. The University reserves the right to admit or not to admit students and to not renew the annual enrollment of those students whose conduct may set a bad example for the University and for the other students. In particular:

- Any action, deed or misdemeanor that contravenes the University code of ethics
- Being charged in criminal proceedings for a fraudulent offense
- Any other conduct, deed or situation that the University considers may affect the normal teaching-learning activity of its students.

Section II: On continuation in Universidad Europea de Madrid
Art. 4.

1. Students enrolled in any of the courses of study delivered at Universidad Europea de Madrid, will have to obtain a minimum of 6 ECTS credits in the first two semesters corresponding to one of the core requirements.
2. If the minimum number of credits are not attained, students may submit a single request to the Dean of the School to continue their course of study.
3. If the request is not granted, or if granted, the student does not obtain that number of credits, he or she may begin to study for a different official qualification delivered in the University, provided that he or she obtains a place in the stipulated admissions process.

Section III: On financial issues

Art. 5.
It is students' obligation or the obligation of the persons financially responsible for them to pay in full the fees corresponding to Universidad Europea de Madrid for the educational services or services of any other kind contracted between the parties.

Art. 6.
1. Breach of payment will lead to the student losing his/her student status and the rights inherent to being a student at this institution, i.e. the right to carry out any of the activities subject to assessment, including examinations and to enroll in any subject or course while the debt remains unsettled, and the breach automatically cancels his/her contractual relationship with Universidad Europea de Madrid. All of the aforementioned does not prejudice the University's rights to claim the amount owed in court, together with the corresponding late payment interest or relevant compensation for the damages sustained by it.

2. The University will demand payment of amounts outstanding on enrollment fees from previous academic years as a prerequisite for enrollment.

3. The University will refuse to issue qualifications and certificates when students have payments outstanding, which will be charged with the late payment interest set in the general enrollment conditions for each academic year.

Section IV: On enrollment in credits
Art. 7.

Generally speaking, a student may enroll in a minimum of 60 and a maximum of 72 ECTS points in one academic year, based on the reference that one ECTS point is equivalent to 25 hours of study activity.

This assignment of credits and the estimate of their corresponding number of hours will be understood as referring to a full/time university student for a minimum of 36 and maximum of 40 weeks in the academic year.

In extraordinary situations, a student may request to study in the summer period up to a maximum of 12 credits from among the subjects the University offers for this period.

Art. 8.
In consideration of students' special educational needs, part-time studies or others, students may enroll in a minimum of 24 ECTS points per year with authorization from the Dean of their School.

Art. 9.
Students must first enroll in the mandatory, core subjects they have pending from the previous year, and then enroll in the corresponding subjects until they are enrolled in the rest of the credits, as per the limits laid out in article 7. The student should take care to ensure that the timetables of the subjects in which he/she is enrolled do not overlap.

Art. 10.
On the qualifications which so require, students must pass the credits on their curriculum in order to be able to perform the programmed outside work placements and clinics. Likewise, in those courses which stipulate it, to pass certain subjects, the student must first have passed those subjects stipulated in the syllabus as prerequisite subjects.

Art. 11.
Under exceptional circumstances, the Dean of the School may authorize outside programmed work placements for students who have not attained the corresponding number of credits.

Art. 12.
Enrollment takes place once only for each academic year, and once it has concluded, it is only possible to make modifications within the deadlines set by the University. For these purposes, the University will set the period in which, each year, students with due cause may amend their enrollment. In exceptional circumstances and for justified reasons provided for in current legislation or for organizational reasons, the University may modify enrollment. The student will always be notified of this.

Section VII: On credit transfers

Art. 16.
In order to foster effective student mobility within national territory and abroad, the University will evaluate credits proposed for transfer, in view of the student's transcript and official academic documents referring to the official courses taken.

Art. 17.
For these purposes, a credit transfer implies that in the official accrediting documents of the courses taken by each student, all the credits obtained in accredited courses previously taken in this or another university, which have not led to the completion of their accredited studies with the subsequent qualification being awarded.

Section VIII. On recognizing credits between bachelor's degrees

Art. 18.
In order to foster effective student mobility within national territory and abroad, the University will evaluate

credits proposed for recognition, in view of the student's transcript and official academic documents referring to the official courses taken.

Art. 19.
Credit recognition implies that the University accepts credits which, having been obtained by the student in official studies, in this or in another university, are accepted in other official studies for the purposes of obtaining an accredited degree.

Credits are specifically recognized in compliance with the following basic rules:

a) If the original qualification belongs to the same branch as the final qualification, the credits corresponding to core subjects of the aforesaid branch will be recognized.

b) The credits obtained in those other core subjects taken belonging to the branch of knowledge to which the student wishes to enter will also be recognized.

c)The other credits, irrespective of which kind, will be recognized by the University by taking account of the extent to which the skills and knowledge attained by the student in the aforesaid prior studies meet the learning outcomes anticipated in the syllabus or are cross-disciplinary in nature.

d) Likewise, credits may be recognized for students who have taken part in university cultural, sports, volunteer and cooperation activities, or have occupied offices as student representatives, up to a maximum of 6 credits.

e) Students who can accredit professional activities by reasoned report or have proof of experience may obtain recognition of credits for the corresponding subjects provided that the aforesaid activities or experience meet the learning outcomes required.

Students who can accredit professional activities by reasoned report or have proof of experience may obtain recognition of credits for professional work placement provided that the aforesaid activities or experience meet the learning outcomes required for the qualification.

Likewise, credits from private university qualifications as referred to in article 34 of the Parliamentary law governing universities may be recognized, provided that they meet the learning outcomes of each subject.

These recognitions of professional activities and private qualifications cannot account for more than 15% of the total credits comprising the syllabus. In these cases, the subject will not receive a grade and will not enter into the calculation of the grade point average on the transcript.

Art. 20.
The subjects for which credits are recognized will be considered passed for all effects and purposes and, therefore, no further assessment will be required. The subjects that have been recognized will appear as such with this denomination and with the corresponding ECTS credits on the student's transcript, and they will have the points equivalent of the grade obtained in the institution where they were attained.

Conversion of overseas university grades to the Spanish system will be governed by the provisions set forth in Appendix I of these Regulations.

Art. 21.
All the credits obtained by a student in accredited learning in any university, those transferred, recognized and passed to obtain the corresponding qualification, will be included on his/her transcript and reflected in the European Diploma Supplement.

Art. 22.
The credits obtained through credits being recognized for learning activities not forming part of the syllabus will not be graded numerically and will not be used to calculate the mean transcript grade.

Section IX. On the recognition of credits from degree programs prior to Royal Decree 1393/2007

Art. 23.
Credits from a degree program prior to RD1393/2007 will be recognized in compliance with the following basic rules:

a) Subjects from the previous program will be recognized when they have similar learning outcomes or contents or student dedication to those subjects in the program the student intends to study, irrespective of what subject category it is. It should be borne in mind that in the degree programs prior to the aforementioned royal decree, credits only expressed the formal teaching hours, without considering the student's dedication outside the classroom.
b) A maximum of 6 ECTS may be recognized for university cultural, sports, volunteer and cooperation or similar activities, or for having occupied offices as student representatives.

Art. 24.
The subjects for which credits are recognized will be considered passed for all effects and purposes and, therefore, no further assessment will be required. The subjects that have been recognized will appear as such with this denomination and with the corresponding ECTS credits on the student's transcript, and they will have the points equivalent of the grade obtained in the institution where they were attained.

Art. 25.
All the credits obtained by a student in accredited learning in any university, those transferred, recognized and passed to obtain the corresponding qualification, will be included on his/her transcript and reflected in the European Diploma Supplement.

Art. 26.
The credits obtained through credits being recognized for learning activities not forming part of the syllabus will not be graded numerically and will not be used to calculate the mean transcript grade.

Section X: On recognition of credits from studies abroad

Art. 27.
When a student is admitted to an accredited degree program for reading or having read an accredited overseas degree program, totally or in full, the subjects taken in the accredited overseas degree program will be recognized when the skills, contents and time dedicated by the student to each subject are similar.

The general criteria applicable will the same as those laid down for Spanish bachelor degrees in these regulations.

Art. 28.
For students who are not nationals of States whose official language is Castilian Spanish, the University may set the language tests it deems appropriate. In compliance with the provisions of RD 1137/2002 of 31 October, students holding a level C2 diploma in Spanish will be exempt from taking the aforesaid tests.

This procedures area available for the Erasmus, Garcilaso and bilateral exchanges, when we recognized credits.

Section XI: Common provisions in these regulations: Time limits and application for recognition

Art. 29.
Students who have studied at another university may apply for recognition of the credits they obtained by submitting a document to the Rector, within the term published by the University, in the Student Affairs Department, together with the corresponding certificate of the studies taken. Once the transcript with the Accredited Academic Certification has been transferred and received, Universidad Europea de Madrid will proceed to recognize and transfer the subjects as appropriate.

Art. 30.
Credits will only be recognized for the purposes of continuing the studies to which the student has been admitted in Universidad Europea de Madrid, and they will lack all validity if the enrollment is not formalized or if enrollment is canceled in the academic year in which the aforesaid recognition is applied for.

Section XII. On other credit recognition

Art. 31.
In compliance with the provisions of Art. 36 of Organic Law 6/2001 governing Universities, those students coming in from other higher education programs referred to in article 3.5 of Organic Law 2/2006, of May 3, governing Education, must abide by the regulations passed at any time by the Academic Council.

In compliance with the provisions of Art. 36 of Organic Law 6/2001 governing Universities, those students entering with professional or work experience, will abide by the regulations passed at any time by the Academic Council.

Final Provision

These regulations were passed by the Academic Council on October 11, 2010.

If applicable, SPC that are expected to have been met in preparatory or pre-professional education are to be documented in the top line of the SPC matrix (see Part II, Section 1.)

Not applicable

II.4. Public Information

II.4.1. Statement on NAAB-Accredited Degrees

In order to promote an understanding of the substantial equivalency process for the professional degree by prospective students, parents, and the public, the Architecture Program includes in promotional media the following text:

The School of Architecture at Universidad Europea de Madrid is currently seeking the substantial equivalency offered by the National Architectural Accrediting Board (NAAB) of the United States of America. After successfully passing the first and the second review visits, the School is preparing the third visit of the NAAB team.

Besides, this public information adds the exact language found in the NAAB Conditions for Substantial equivalency, page 4:

NAAB Substantial Equivalency (SE)

The term "substantial equivalency" identifies a program as comparable in educational outcomes in all significant aspects, and indicates that it provides an educational experience meeting acceptable standards, even though such program may differ in format or method of delivery. Substantial equivalency is not accreditation.

The designation is valid for six years beginning 1 January of the year in which the final visit (Visit 3) took place. In order to maintain the designation, the program must be visited again in the sixth year of the designation.

These texts appears on the link: http://arquitectura.uem.es/programas/naab

Therefore, the faculty members and incoming students are informed of how to access the NAAB Conditions for Substantial Equivalency (including the Student performance criteria) on the NAAB web site through several ways: Email from the Academic Director (professors) and on line message from the Student Service Director in the Virtual Campus Forum (students). Besides, public presentations about the Substantial equivalency process organized by the School´s Board, opened for students and faculty members will be organized in autumn 2014.

II.4.2. Access to NAAB Conditions and Procedures

Information on NAAB Substantial Equivalency procedures and guidelines could be found at our School´s website http://arquitectura.uem.es/programas/naab

The links for 2012 NAAB Conditions for the Substantial equivalency and the 2013 NAAB procedures for Substantial equivalency are in our web.

II.4.3. Access to Career Development Information

The career development information is accessible through UEM´s Intranet:
https://portal.uem.es/portal/page/portal/RRHH/Plan%20de%20Carrera%20Docente

This link is accessible for the faculty through a personal code for each faculty member.

II.4.4. Public Access to APRs and VTRs

The Architecture Program Report APR, the final Visiting Team Report VTR from Visit 1 and Visit 2 and pertinent attachments, and the current edition of the NAAB Conditions and Procedures for the Substantial Equivalency are housed together in the architecture library and are freely accessible to all.

II.4.5. ARE Pass Rates

The Spanish National Council of Architects (*Consejo de Arquitectos*) doesn´t analyze this data, as there are no registration exams in Spain: the access to the profession is through the Graduation project of each School of Architecture. Each School analyzes its own data of number and proportions of students graduated per year.

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Part Three. Progress since Last Site Visit

1. Summary of Responses to the Team Findings [Year]

A. Responses to Conditions Not Met/Not yet met

Number & Title of Condition(s) Not Met: ***I.1.1 History and Mission****:*

Comment from previous VTR [2013] 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)

Response from Program [2014]: In point **II.2.2. Professional Degrees and Curriculum** (page 113) the program details the 60 ECTS credits of general studies included in the program (20% of the program credits). This proportion was lower in the previous visit (54 ECTS credits). However, since the last visit, the program has increased its general study courses by adding one elective liberal arts course (Elective courses: ARCHITECTURE AND PHILOSOPHY: TOOLS FOR REFLECTION, and ARCHITECTURE AND SOCIOLOGY: TOOLS FOR PRACTICAL RESEARCH). The proportion rises to 38% if we count the mandatory general study courses taken at Tertiary School (see Response from Program to point **II.2.2. Professional Degrees and Curriculum** (page 134).

It is true that the Spanish law does not allow a much greater increase in the number of general study courses in the architectural programs, and therefore in our program these general study courses represent 60 ECTS. However, what we do at our School is to add more general studies by **encouraging the holistic and liberal arts through cross-disciplinary activities in several professional study**

courses or in general activities at the School. One example would be the liberal arts activity "Reading Club" led by the prestigious writer Carmen Posadas.

Number & Title of Condition(s) Not Met: **I.1.3A: Architecture and the Academic Community**

Comment from previous VTR [2013]. 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).

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

Response from Program [2014]: *This point is addressed in the response to Condition Not Met II.2.2 Professional Degrees and Curriculum (page 134).*

Number & Title of Condition(s) Not Met: **SPC A04 Technical documentation.**

Comment from previous VTR [2013] 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.

Response from Program [2014]: *The program has several examples of SPC Technical Documentation in the following courses:* ***Technical systems, Construction IV: Envelope, Construction II: Materials, Graduation Project*** *and others. Exercises showing this SPC will be exhibited in the team room in visit 3.*

Number & Title of Condition(s) Not Met: **SPC A07 Use of precedents.**

Comment from previous VTR [2013]. 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.

Response from Program [2014]: *The program has examples of SPC Use of Precedents in all the* ***History*** *courses and in several* ***Design Studio*** *and* ***Urbanism*** *courses. Exercises showing this SPC will be exhibited in the team room in visit 3.*

Number & Title of Condition(s) Not Met: **SPC A09 Historical Traditions and Global Culture.**

Comment from previous VTR [2013]. 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.

Response from Program [2014]: *The projects carried out this academic year have taken place in different geographical areas around the world.* ***Design Studio courses*** *and* ***Urbanism courses*** *have diverse examples of designing and planning in different locations around the world. This SPC will be shown in the team room.*

Number & Title of Condition(s) Not Met: **SPC A10 Cultural diversity.**

Comment from previous VTR [2013].

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.

Response from Program [2014]: *All the* ***Urbanism*** *courses have underlined this SPC, which has been essential in the development of these courses.*

Number & Title of Condition(s) Not Met: **SPC B02 Accesibility.**

Comment from previous VTR [2013].

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 students posses 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.

Response from Program [2014]: *The* ***Integration Workshop II*** *course has developed this SPC by carrying out an accessibility project.*

Number & Title of Condition(s) Not Met: **SPC B06 Comprehensive design.**

Comment from previous VTR [2013].

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.

Response from Program [2014]: *The **Graduation Project, Integration Workshop** and **Technical Systems** courses have developed this essential SPC. The results will be shown at the team room in visit 3.*

Number & Title of Condition(s) Not Met: ***II.2.2 Professional Degrees and Curriculum***

Comment from previous VTR [2013].

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.

NOTE: The text below in the VTR was incorrect and strikethrough. We substitute it for the program response to the VTR for the curricular requirements of Spanish law for the bachelor's degree in fundamentals of architecture and for UEM's requirements for the bachelor's degree in fundamentals of architecture.

The program describes the Spanish legal requirements for architecture programs (law EDU/2075/2010), comparing them with the UEM's architecture programs (Bachelor's Degree and Master's Degree):

Requirements of BACHELOR'S DEGREE IN FUNDAMENTALS OF ARCHITECTURE according to Spanish law EDU/2075/2010

The Bachelor's Degree comprises 300 credits, of which at least 226 credits must be accomplished in the following areas/modules:

Propedeutical Module (drawing, geometry, mathematics, physics): 60 credits minimum

Technical Module (Construction, Structures, Installations) 60 credits minimum

Projects Module (Composition/history, Architectural projects and Urbanism): 100 credits minimum

Graduation Project Module: 6 credits minimum

BACHELOR'S DEGREE IN FUNDAMENTALS OF ARCHITECTURE offered by UNIVERSIDAD EUROPEA DE MADRID

The Bachelor's Degree comprises 300 credits. It meets Spanish legal requirements due to the compulsory 226 credits. The remaining 74 credits are added/increased in the following way: increasing the credits in the project module (100 credits to 120 credits); increasing the credits in the technology module (60 credits to 72 credits); adding 12 Professional Internship credits, increasing the Graduation Project credits (6 credits to 12 credits); and adding 24 credits of UEM cross-disciplinary courses (which include liberal arts courses such as languages).

Propedeutical Module (60 credits): Drawing: 42 credits, Sciences: 18 credits (Geometry: 6 credits, Mathematics: 6 credits, Physics: 12 credits):

Technical Module (72 credits): Construction: 24 credits, Structures: 18 credits, Installations: 18 credits, mixed 12 credits)

Projects Module (120 credits): Composition/history 24 credits, Architectural projects 66 credits, and Urbanism 30 credits.

Graduation Project Module (12 credits).

Professional internship module (12 credits).

UEM cross-disciplinary courses Module (24 credits): Deontology 6 credits, English 6 credits, communication skills 6 credits, business management 6 credits.

Requirements of MASTER'S DEGREE IN ARCHITECTURE according to Spanish law EDU/2075/2010

The Master's Degree comprises 60 credits, of which at least 50 credits must be accomplished in the following areas/modules:

Technical Module (Construction, Structures, Installations) 8 credits minimum

Projects Module (Composition/history, Architectural projects and Urbanism): 12 credits minimum

Graduation Project Module: 30 credits minimum

MASTER'S DEGREE IN ARCHITECTURE offered by UNIVERSIDAD EUROPEA DE MADRID

The Master's Degree comprises 60 credits. It meets Spanish legal requirements thanks to the compulsory 50 credits. The rest of the 10 credits are added in elective courses.

Technical Module (8 credits): Construction, Structures, Installations.

Projects Module (12 credits): Composition/history, Architectural projects and Urbanism.

Graduation project Module (30 credits).

Elective courses Module (10 credits)

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.

Response from Program [2014]: II.2.2 Professional Degrees and Curriculum.

The NAAB requirement says that substantially equivalent degree programs must include general studies, professional studies, and electives. **General studies courses** amount to 60 ECTS credits (20% of the program credits): 54 ECTS of general studies are compulsory, and 6 ECTS of general studies correspond

to an **elective course.** The professional studies courses represent 240 ECTS (80% of the program credits).

In the following part we justify the profile of the general studies courses:

Applied Mathematics (6 ECTS) and **Physics** (6 ECTS). These are SCIENCE courses. See Supplemental part 4: course descriptions

Business management (6 ECTS). This is an ECONOMIC SCIENCE course (examples of content: Business World, Legislation, Financial and Accounting Mathematics, Business Responsibility, etc.). See Supplemental part 4: course descriptions

Communication skills (6 ECTS) and **English** (6 ECTS). These are SOCIAL SCIENCE-LANGUAGE courses. See Supplemental part 4: course descriptions

Integrated drawing workshop I (6 ECTS) and **Integrated drawing workshop II** (6 ECTS). These are ARTS courses. These drawing workshops are more artistic than architectural. The drawing tools are manual or digital. Some of the topics they cover are: Analysis and theory of form, Perception and composition, Design process, Image management, Representation and form analysis, Visual, graphic and compositional language. The NAAB team will be able to see the exercises from these courses in the team room. Integrated drawing workshops III and IV are more architectural, and so these courses are professional study courses.

Introduction to contemporary architecture and art (6 ECTS), **Architecture and art of the 20th and 21th centuries** (6 ECTS), **History of art and architecture I** (6 ECTS) and **History of art and architecture II** (6 ECTS). All these courses (24 ECTS credits) have 50% of their credits and content exclusively devoted to HISTORY OF ART. **Therefore, 12 ECTS credits correspond to general studies (HISTORY OF ART)** and the remaining 12 ECTS credits are professional studies (HISTORY OF ARCHITECTURE).

Elective (6 ECTS). The program has modified its curriculum since visit 2 and has asked the Spanish Ministry for permission to add an elective course. The profile of this elective course is non-professional; it is a general study course. It is related to HUMANITIES (Philosophy or Sociology) or to University activities (non-architectural activities). The name and the content of these electives are not official yet, but will probably be official by the time of visit 3 of the NAAB team.

There are three of these new electives: **UNIVERSITY ACTIVITIES, ARCHITECTURE AND PHILOSOPHY: TOOLS FOR REFLECTION**, and **ARCHITECTURE AND SOCIOLOGY: TOOLS FOR PRACTICAL RESEARCH.**

All the general study courses amount to 60 ECTS credits (20% of the program credits).

In the last visit, the program did not exhibit enough work demonstrating the ART content of **Integrated drawing workshop I**, **Integrated drawing workshop II, Introduction to contemporary architecture and art**, **Architecture and art of the 20th and 21th centuries**, **History of art and architecture I**, and **History of art and architecture II.** We are preparing all these works for visit 3 in order to better demonstrate the art content of these courses.

ARTS and HUMANITIES are also developed though **cross-disciplinary activities** (lectures, seminars, etc.) from other professional courses such as Integration workshop, Design studios, etc.

In addition, the general studies are guaranteed as an admission requirement at **tertiary school** level in Spain. During the two academic years prior to going to University, all students complete the following **630 hours** of mandatory **liberal arts** courses in all Spanish schools:

Philosophy and citizenship (70 hours)
History of Philosophy (70 hours)
History (70 hours)
Spanish language and literature (210 hours)
Foreign language (210 hours)
Sciences for the contemporary world (70 hours)

Moreover, if the student chooses the technical itinerary at tertiary school (recommended for Architecture programs), he/she will complete **540 hours** (6 courses) of the following **science courses**:

Mathematics I (90 hours) and Mathematics II (90 hours), Physics and chemistry (90 hours), biology and geology (90 hours), earth and environmental sciences (90 hours), Technical drawing I (90 hours) and II (90 hours), Industrial technology I and II (90 hours), Electronics (90 hours). Two more **electives** need to be taken by the student.

Therefore, at tertiary school the student takes **630 hours of liberal arts** plus **540 hours of sciences**, which totals **1,170 hours of general studies** (approximately 96 ECTS credits).

As the final exam which guarantees the acquisition of the general knowledge prior to entering University, the Spanish government organizes a **University Admission Exam** (*Prueba de acceso a la Universidad, PAU*). This exam is mandatory for all students who want to be admitted to any Spanish University (including any School of Architecture). The exam has 5 parts: 1st part: Spanish language and literature; 2nd part: foreign language; 3rd part: History of Philosophy, 4th part: Science Itinerary, and 5th part: language and literature. The *PAU* is a very demanding exam that is spread across three days (not all students pass the exam), and it guarantees the acquisition of the general knowledge and skills taught at tertiary school before entering University.

In conclusion, if we add together the **96 ECTS credits of general studies (liberal arts/sciences) taken at tertiary school** as the university admission requirement, and the **60 ECTS credits of general studies (liberal arts/sciences) included in the Architecture program** (300 ECTS credits), the final proportion **of general studies is 38%** (154 ECTS credits/396 ECTS credits).

B. Responses to causes of concern

Title of Cause for Concern: A.1. PHYSICAL INFRASTRUCTURE

Comment from previous VTR [2013]: A.1. PHYSICAL INFRASTRUCTURE

a) The availability of space in the School of Architecture Building for independent and collaborative student work, ideally accessible for extended hours, would enhance the learning experience of all students. It would be particularly beneficial to the nearly 40% of program students who attend the UEM on international or exchange programs, as well as to those students whose programs of study take them to the UEM only for short periods of time. Access to campus workspace will afford them an opportunity to become more readily integrated to the life of the school.

Response from Program [2014]:

The program has significantly enlarged the students' workspace since the last NAAB visit. In 2013 the students' workspace was 246,4 square meters, divided among classrooms C-112 and C-223, as well as the tables around the main hall on the two floors. In 2014, the program has gained a further 427,12 square meters of student workspace on floor 0, where there are 176 new tables for the students, who can use them at any time. This new layout encourages individual and team work at University. These spaces are accessible for extended hours (8:00-21:30 from Monday to Saturday and 8:00-15:30 on Sunday). In addition, the art labs (971,5 square meters) are in the process of being integrated with the architecture workshops. The new spaces (work spaces and labs) can be seen in point **I.2.3 Physical resources** (page 70)**.**

(Note: 1 square meter equates to 1,19 sq yd)

Comment from previous VTR [2013]: A.1. PHYSICAL INFRASTRUCTURE

b) Better equipped shops for construction in wood, metal, and other materials will provide students with valuable opportunities to work in three dimensions at a range of scales. Additionally, the team notes a need for 3D digital fabrication equipment, including CNC machines/routers, laser cutters, and 3D printers sufficient in numbers for the size of the program's student population. Some of this equipment exists, and new pieces are expected, but the demand and need are substantial. Each of these machines will enhance the educational experience of architecture and dual degree students (Architecture + Art and Architecture + Design), enabling the program to remain current with issues at the forefront of professional practice.

Response from Program [2014]:

The program has increased its 3D modeling facilities since the last NAAB visit. Firstly, the digital modeling location has been moved to opposite the new student workspace. In 2013 students were able to make models with a computer-controlled laser cutter, for press-fit assembly of 3D structures from 2D parts. In 2014 there are two laser cutters. Students can also work with a 1200mm.x800mm.x100mm. numerically-controlled milling machine, for making furniture sized parts or directly mill different materials in 3 dimensions for terrains, models, etc. Main materials: woods, MDF, plywoods, foams... Also a 3D printer: **Makerbot Replicator2** has been acquired by the program. This printer permits the construction of 3D objects in PLA plastic filament.

The space for physical models has been also relocated and has new modeling machines for cutting different materials. There is a recycling space for the leftover materials. The combination of the digital modelling space, the physical modelling space and the computer room follows the FAB LAB model, the quality seal initiated in MIT for these types of work spaces. At present, the School is in the process for achieving this FAB LAB seal. The digital and physical modeling space has also been enlarged: 127,11 square meters in 2013 on floor 1 and 149,90 square meters in 2014 on floor 0.

(Note: 1 square meter equates to 1,19 sq yd)

In addition, since the beginning of 2014 the architecture program has been undergoing a process of integration whereby it would share the modeling/sculpture services with the art program. Wood, metal, mood, polyester and other materials can be used for building models-sculptures in 3D, in the same conditions as the art students and the Dual Degree in Art-Architecture students.

Comment from previous VTR [2013]: A.1. PHYSICAL INFRASTRUCTURE

Title of Cause for Concern: A.2. HUMAN INFRASTRUCTURE | STUDENTS:

c) The UEM has taken steps to accommodate persons with limited mobility throughout

its campus, installing new ramps, accessible toilet facilities, and an elevator with space for a wheelchair. The team notes, however, that the location, accessibility, and number of these new accommodations do not yet provide disabled individuals with a truly equitable campus experience.

Response from Program [2014]:

The Architecture Program addressed this cause for concern by improving accessibility in the School. A new elevator has been installed in the main outside staircases, making access easier and faster than it used to be. An accessible door has been also installed in the main entrance of building C. Both new and old accessible facilities can be seen in point **I.2.3 Physical resources** (page 70).

Title of Cause for Concern: A.2. HUMAN INFRASTRUCTURE | STUDENTS:

a) The UEM program is remarkable in the depth and breadth of its international offerings–for both native Spaniards who seek credentials for international mobility, and for the substantial cohort of international students who travel from abroad to study in the Madrid campus. Many of those students are from Latin America. Fully conversant in Spanish, they integrate quickly with the native student population. Many other international students, however, complete their UEM degrees via English language classes. While the program deserves high praise for its ability to offer the professional curriculum entirely in English, it should take care to ascertain that the curricular experience of those international students—directed by English-speaking faculty who are not always fully integrated to the academic life of the school—does not inadvertently result in a student experience that remains marginal. The team understands that the program is aware of the situation, which is improving steadily. We commend the program for its attention to the issue and urge its resolution.

***Response from Program [2014]: A.2. HUMAN INFRASTRUCTURE | STUDENTS*.**

In 2012-2013 the program did not have recommended proportion of courses whose teachers taught only in the English courses. However, this proportion has decreased considerably since then. The following table summarizes the proportion of courses with teachers who only teach in English courses since 2013-2014.

Number of courses with teachers who teach only in English courses of the Degree

	2012-2013 academic year	2013-2014 academic year	2014-2015 academic year
Department of Design and Graphic Communication. 17 courses	11/17 courses	6/17 courses	1/17 courses
Department of Technology. 15 courses	5/15 courses	8/15 courses	5/15 courses
Department of Urbanism and History. 14 courses.	3/14 courses	2/14 courses	2/14 courses

In conclusion, in 2012-2013 there were 19 out of 46 courses with teachers only in English courses, whereas in 2014-2015 the proportion will be 8 out of 46 courses.

Comment from previous VTR [2013]: A.2. HUMAN INFRASTRUCTURE | STUDENTS.

b) While membership in the Laureate International Universities clearly extends the opportunities and global reach of the program, perhaps it simultaneously narrows the economic diversity of the student body. Within that student body, the limited availability of financial assistance may, in turn, restrict access to the range of opportunities offered by the program. Additional grants and scholarships to supplement already-existing resources would enable more students to take advantage of UEM's annual Travel Week, travel within and outside Spain for workshops and other coursework, international exchange and internship programs.

Response from Program [2014]: A.2. HUMAN INFRASTRUCTURE | STUDENTS

In order to guarantee that all the students can enjoy at least one of the annual trips during their studies, the Architecture Program decided to grant the UEM's annual Travel Week to second-year students, in the annual trip organized to Berlin in 2014. This is the first time the program has granted 100% of the trip expenses (hotel + flight). Almost 100% of the students took part in the trip, which is a positive statistic compared with the proportion of students participating in other trips (only around 50% of the class).

Title of Cause for Concern: A.3. HUMAN INFRASTRUCTURE | FACULTY

a) Supporting the investigative, entrepreneurial endeavors of gifted program faculty will promote the expansion of externally funded projects and collaborations, advancing the program's research mission. This will build on already-existing research successes, attracting and retaining valuable faculty, and continuing to raise the profile of the program while gradually augmenting its access to funding from external sources.

Response from Program [2014]: A.3. HUMAN INFRASTRUCTURE | FACULTY

The program has increased its external research funding, one of the beneficiaries being the research group AIR LAB, led by Prof. Jose Luis Esteban Penelas (project exhibit at the Biennale of Urbanism/Architecture Shenzhen- Hong Kong). The project budget is € 5,598.17 and the funding comes from the Biennale organization.

Title of Cause for Concern: A.3. HUMAN INFRASTRUCTURE | FACULTY

b) In a teaching-intensive program, support for faculty research efforts might include access to seed funding, some release from teaching and service responsibilities, the provision of space, and as required, the opportunity to access campus resources.

Response from Program [2014]: A.3. HUMAN INFRASTRUCTURE | FACULTY

From April 1 to April 27, 2014, the University organized a call for reduced teaching hours for researchers. This call is organized every two years. One of our main researchers, Prof. Jose Luis Esteban Penelas, applied for this reduction and obtained it. The teaching-hours reduction is calculated through a matrix which can be explained to the team in visit 3. This reduction is calculated following different parameters (type of contract, research CV, number of research hours, etc.). The program should encourage more researchers to apply for teaching-hours reduction in future calls.

In addition, the new research journal REIA managed by our School will provide our researchers with an excellent platform from which to disseminate their projects, and which will encourage future researchers to join the research field.

The recent refurbishment of the faculty offices will help to promote research among our faculty members.

Title of Cause for Concern: *B. CURRICULUM*

a) Comprehensive Design: The team found excellent building technology coursework among the student exhibits, but failed to see the full range of these abilities successfully documented and integrated into a single project.

Response from Program [2014]: B. CURRICULUM

The program has excellent examples of exercises and projects with comprehensive design that integrates design-technology and other issues. However, these exercises were not shown in the team room in visit 2. In visit 3 the team will be able to see many more examples of these comprehensive design projects in the team room. The **Graduation Project, Integration Workshop** and **Technical Systems** courses are the principal courses which include this SPC in their exercises to a greater extent.

Title of Cause for Concern: B. CURRICULUM

b) Madrid focus: While the team understands that the singular subject matter concentration is a product of NAAB's request for an exhibition that privileges the work of the previous year, the team encourages the program to look outward as well as inward as it frames the educational experiences of its students.

Response from Program [2014]: B. CURRICULUM

Madrid Focus was a specific "topic of the year" based on an agreement with Madrid City Council. The following "topic of the year" is more open in conceptual and geographical terms: **Architecture, Beyond Now**. This topic explores new fields where architects can participate. In addition, there is no geographic limit. Actually, many design projects carried out by the program this year have been developed in all corners of the world, thus complying with NAAB SPC A-9 Historical traditions and global culture.

2. Summary of Responses to Changes in the NAAB Conditions1

NAAB Conditions have not changed since the previous visit.

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Part Four: Supplemental Information

1. **Course Descriptions (see *2009 Conditions*, Appendix 1 for format)**

We add the name of the equivalent 2008 curricular program course in all the names of the courses of the 2011 curricular program.

101-APPLIED MATHEMATICS. ECTS Credits: 6. University Core Required UCR.

Course Description:
Introduction to numerical and infinitesimal calculus, linear algebra, analytical geometry and statistical analysis. Search for bibliographic mathematical references. Ability to communicate ideas through mathematical language.

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters.
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 9: Planning and time management: Ability to plan work based on the need to meet deadlines
- DSC 11: Applying knowledge of numerical, analytical geometry and differential and algebraic methods

Student Performance Criterion/a addressed:
A 5- Investigative skills (equates to BC 3)

Topical Outline:
Linear equation systems, matrixes, determinants 25%
Plane and space geometry 20%
Fundamentals of differential and integral calculus in one and two variables 35%
Discrete mathematics, statistics, linear programming 20%

Prerequisites: None

Textbooks/Learning Resources: Algebra and Geometry. E. Hernández-Rodríguez.
Calculus, 2 Vols. R. Smith and R. Minton.

Offered: Fall 2008, Fall 2009, Fall 2010 (2008 curriculum), Fall 2011, Fall 2012, Fall 2013 (2011 curriculum)

Faculty assigned: Rosa Rodríguez F/T, Jose Manuel López P/T

102-COMMUNICATION SKILLS (Language and communication in 2008 curricular program**).** ECTS Credits: 6. University Core Required UCR.

Course Description:
Ability to communicate architectural ideas through text and speech

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 7: Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding

Student Performance Criterion/a addressed:
A 1- Communication skills (equates to CC 4)

Topical Outline:
Introduction to the theory of knowledge 10%
Information search and reference preparation 20%
Understanding information 10%
Written communication 20%
Formal speech and communication strategies 10%
Public speaking techniques 20%
Assertiveness 10%

Prerequisites: none

Textbooks/Learning Resources: Lange Alexandra (2012) Writing About Architecture: Mastering the language of buildings and cities. Nueva York: Princeton Architectural Press.
Greusel, David (2002) Architect's Essentials of Presentation Skills. New York: Wiley.

Offered: Fall 2008, Fall 2009, Fall 2010 (2008 curriculum, course was previously named Language and Communication), Fall 2011, Fall 2012, Fall 2013 (2011 curriculum)

Faculty assigned: Julian de la Fuente P/T, Liliana Obal, Beatriz Matos P/T

103-INTRODUCTION TO CONTEMPORARY ARCHITECTURE AND ART (Analysis of Image; contemporaneous art and culture in 2008 Curricular program**).** ECTS Credits: 6. University Core Required UCR.

Course Description:
Analysis of art and architecture from 20th to 21st Century, identification of reference models, presentation of research conclusions, capability of searching, analyzing and synthesizing data.

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters.
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 2: Understanding the role of fine arts as a factor that may influence the quality of architectural design
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 2: Self confidence
- CC 3: Awareness of ethical values, including: understanding the rights and obligations of persons and professionals, promoting respect for human rights, protecting the weaker sections of society, and respecting the environment
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding
- CC 9: Planning and time management: Ability to plan work based on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 48: Acquisition of knowledge in general form theories, composition and architectural types
- DSC 54: Acquisition of knowledge in aesthetics and the theory and history of fine arts and applied arts

Student Performance Criterion/a addressed:

A 7- Use of precedents (equates to DSC 54)

Topical Outline:
History: 20th Century 2nd half - present day 40%
Introduction: Basic Concepts 10%
Essential terminology of the language 10%
Analysis: main trends and authors 20%
Analysis: current architectural paradigms 20%

Prerequisites: none
Textbooks/Learning Resources: Colquhoun. A. Modern Architecture.
Benjamin. W. The art-work and its technical reproduction.
Offered (semester and year): Fall 2008, Fall 2009, Fall 2010 (2008 curriculum, course was previously named *Analysis of Image; contemporaneous art and culture*), Fall 2011, Fall 2012, Fall 2013 (2011 curriculum)
Faculty assigned: Miguel Luengo P/T, Sally Gutierrez P/T, Liliana Obal P/T

104-ARCHITECTURAL DRAWING (Geometrical and Architectural representation systems in 2008 curricular program) ECTS Credits: 6 University Core Required UCR.

Course Description:
Graphic representation systems, sketching, proportion, graphic language and techniques. Understanding the architectural form and graphic codes. Capability of communicating architecture in a graphic way.

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 2: Understanding the role of fine arts as a factor that may influence the quality of architectural design
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding
- CC 6: Flexibility
- CC 9: Planning and time management: Ability to plan work based on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 1: Ability to apply graphic procedures representing spaces and objects

Student Performance Criterion/a addressed:

A 8-Ordering systems (equates to DSC 1)

Topical Outline:
Geometric and architectural representation 20%
Development and management of graphic representation 10%
Variables and foundations. Graphic techniques 20%
Scales and geometric representation 20%
Acquired knowledge and application 10%
Software for architectural drawing 10%
Summarizing plans and noting data 10%

Prerequisites: none
Textbooks/Learning Resources: Architectural drawing manual. Frank Ching
Offered: Fall 2008, Fall 2009, Fall 2010 (2008 curriculum, course was previously named *Geometrical and Architectural representation systems*), Fall 2011, Fall 2012, Fall 2013 (2011 curriculum)
Faculty assigned: Andrés Abásolo F/T, Juan Carlos García Perrote F/T, Jose María Alberca P/T,

105-INTEGRATED DRAWING WORKSHOP I (**Two dimensional representation workshop** in 2008 curricular program**)** Credits: 6. University Core Required UCR.

Course Description:
Ability to draw images in 2D and 3D, application of visual perception and theories of form and composition, creativity and ability to communicate architectural ideas.

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 2: Understanding the role of fine arts as a factor that may influence the quality of architectural design
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding
- CC 6: Flexibility
- CC 9: Planning and time management: Ability to plan work based on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 2: Ability to conceive and represent the visual attributes of objects and master proportion and drawing techniques, including digital techniques
- DSC 4: Acquisition of knowledge and application to architecture and urbanism in the analysis and theory of form and the laws of visual perception

Student Performance Criterion/a addressed:
A 2-Design thinking skills (equates to CC 10)
A 3-Visual Communication skills (equates to DSC 2 and DSC 4)

Topical Outline:
Management prior to project. 10%
Analysis and theory of form. 10%
Perception and composition. 10%
Design process 10%
Image management 20%
Instrumental tools 10%
Basic contents semester conclusion. 10%
Acquired knowledge and application 20%

Prerequisites: none
Textbooks/Learning Resources: G.F.VALDERRAMA, Fernando. *Tutoriales de informática para arquitectura: AutoCAD, 3D Studio, Corel Draw, Word, Excel y Presto*. Celeste Ediciones S.A., Madrid, 1999.
Offered: Fall 2008, Fall 2009, Fall 2010 (2008 curriculum, course was previously named *Two dimensional representation workshop*), Fall 2011 (cv 2011)
Faculty assigned: Diego García Cuevas P/T, Alberto Galindo.

106-PROCESS PHYSICS. ECTS Credits: 6. University Core Required UCR.

Course Description:
Comprehension of Physics principles applied to Construction (energy transformation, sound and light transmission and heat exchange). Ability to perform lab research.

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this.
- CC 2: Self-confidence
- CC 4: Communication skills in native language (written or orally) and in English language
- CC 9: Planning and time management: Ability to plan work based on the need to meet deadlines
- DSC 7: Acquisition of knowledge and application to architecture and urbanism in general mechanic principles, statics, geometry and mass tensor and vector fields
- DSC 8: Acquisition of knowledge and application to architecture and urbanism in thermodynamic principles, acoustics and optics
- DSC 9: Acquisition of knowledge and application to architecture and urbanism in fluid mechanic principles, hydraulics, electrical and electromagnetism

Student Performance Criterion/a addressed:

A 5-Investigative skills (equates to BC 3)

Topical Outline:
Particle mechanics 10%
Energy generation and transformation 15%
Fluid statics and fluid dynamics 20%
Thermodynamics 15%
Hygrothermal transmission and insulation 10%
Thermal, optical and electrical properties 10%
Solar energy. Seismic prevention 10%
Acoustics 10%

Prerequisites: None
Textbooks/Learning Resources: Physics for science and technology; F. Tipler, G. Mosca
University Physics. H. Young, R. Freedman
Offered (semester and year): Fall 2009, Fall 2010, Spring 2012 (2008 curriculum), Fall 2011, Spring 2013 (2011 curriculum)
Faculty assigned: José Manuel López F/T, Alexander Barrios P/T, Ñiurka Barrios P/T

107-CONSTRUCTION I: SYSTEMS (Contruction systems in 2008 curricular program) ECTS Credits: 6. Degree Required DR.

Course Description: Knowledge of materials and constructive systems, design and building sites. Construction detailing

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 4: Understanding the problems of structural design, building-engineering related to building design as well as the resolution techniques which are used
- SC 5: Knowing the physical problems, various technologies and building functions to provide them with interior comfort conditions and protection from climate factors
- SC 6: Knowing the industries, organizations, regulations and procedures for translating design concepts into buildings and integrating plans into overall planning
- CC 1: Responsibility . CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding. CC 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work based on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 18: Ability to design, calculate, integrate building and urban ensembles and implement internal system division, carpentry, stairs and other finished works
- DSC 19: Ability to design, calculate, integrate building and urban complexes and running interlocks, roofing and other structural work
- DSC 25: Acquisition of knowledge in conventional building systems and their pathologies
- DSC 28: Professional ethics, collegiate organizations, structure and knowledge of professional liabilities

Student Performance Criterion/a addressed:

A 4-Technical documentation (equates to DSC 18)

Topical Outline:
Construction language, techniques, process and elements 20%
Basic materials and components 20%
Form, support and infrastructure 20%
Structure and surroundings 20%
Occupancy. Vertical and horizontal circulation 10%
General building networks 10%

Prerequisites: none
Textbooks/Learning Resources: Pete Silver and Will McLean, *Introduction to Architectural Technology* (London: Laurence King Publishing, 2008); Francis D.K. Ching and Cassandra Adams, *Building Construction Illustrated* (New York: Wiley and sons, 2001);
Offered: Spring 2009, Spring 2010, Spring 2011, Spring 2012, Spring 2013
Faculty assigned: Ramón Lopez Neira P/T, Álvaro Galmés

108-URBAN DEVELOPMENT BASICS . ECTS Credits: 6. Degree Required DR.

Course Description:
Understanding, representing and analyzing the city and its integration in the terrain. Urban development processes.

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 3: Knowing the urbanism and skills involved in the planning process
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 1: Responsability . CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding. CC 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work based on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 57: Acquisition of knowledge in sociology, theory, urban economics and history

Student Performance Criterion/a addressed:

B 4-Site design (equates to SC 3)
C 1-Collaboration (equates to CC 7)

Topical Outline:
Graphic-theoretical tools 10%
Theoretical and global vision of the city 20%
Basic concepts: land representation 20%
Shaping the city 10%
Ecological sense 10%
Knowledge of environment and urban statistic 5%
Planning ability 30%

Prerequisites: none
Textbooks/Learning Resources: The history of the city. Leonardo Benevolo.
Offered (semester and year): Fall 2009, Fall 2010 (cv 2008), Spring 2012 (cv 2011), Spring 2013, Spring 2014
Faculty assigned: Juan Carlos García Perrote, F/T Lourdes Jimenez Garcinuño P/T, Silvia Herrero F/T, Mateus Porto P/T

109-ARCHITECTURAL GEOMETRY (Genesis of form** in 2008 Curricular program**). ECTS Credits: 6. Degree Required DR.

Course Description:
Comprehension of geometrical concepts, capability of solving geometrical problems, under the graphic and analytical representation systems with software tools, identification of reference models.

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding
- CC 6: Flexibility
- CC 9: Planning and time management: Ability to plan work based on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 1: Ability to apply graphic procedures representing spaces and objects
- DSC 5: Acquisition of knowledge and application to architecture and urbanism in metric and projective geometry

Student Performance Criterion/a addressed:

A 8-Ordering systems (equates to DSC 1 and DSC 5)

Topical Outline:
Introduction: layouts and representation. 20%
Elements, geometric forms and surfaces. Morphological concepts, 3D operation. 40%
Presentation: documentation, rendering, printing. 10%
Morphological and geometric references. 10%
Acquired knowledge and application. 20%

Prerequisites: none
Textbooks/Learning Resources: H. Pottmann, A. Asperl, M. Hofer and A. Kilian: Architectural Geometry
Offered (semester and year): Fall 2008, Fall 2009, Fall 2010 (2008 curriculum, course was previously named *Genesis of form*), Spring 2012, Spring 2013, Winter 2014 (2011 curriculum)
Faculty assigned:
Diego García Cuevas P/T, Andrés Abásolo F/T, Jose María Alberca P/T.

110-INTEGRATED DRAWING WORKSHOP II (Two dimensional representation workshop in 2008 Curricular program**)** . ECTS Credits: 6. Degree Required DR.

Course Description:
Ability to draw images in 2D and 3D, application of visual perception and theories of form and composition, creativity and ability to communicate architectural ideas.

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 2: Understanding the role of fine arts as a factor that may influence the quality of architectural design
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding
- CC 6: Flexibility
- CC 9: Planning and time management: Ability to plan work based on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 2: Ability to conceive and represent the visual attributes of objects and master proportion and drawing techniques, including digital techniques
- DSC 3: Acquisition of knowledge and application to architecture and urbanism of spatial representation systems
- DSC 4: Acquisition of knowledge and application to architecture and urbanism in the analysis and theory of form and the laws of visual perception

Student Performance Criterion/a addressed:

A 2-Design thinking skills (equates to CC 10)
A 3-Visual Communication skills (equates to DSC 2 DSC 3 and DSC 4)
A 8-Ordering systems (equates to DSC 2 DSC 3 and DSC 4)

Topical Outline:
Management prior to project. 10%
Representation and form analysis 20%
Visual, graphic and compositional language 20%
Technical and conceptual information 10%
Design process 10%
CG modeling 10%
Acquired knowledge and application 20%

Prerequisites: none
Textbooks/Learning Resources: G.F.VALDERRAMA, Fernando. *Tutoriales de informática para arquitectura: AutoCAD, 3D Studio, Corel Draw, Word, Excel y Presto*. Celeste Ediciones S.A., Madrid, 1999. SAINZ, Jorge: *El dibujo de arquitectura, Teoría e historia de un lenguaje gráfico*, Barcelona: Reverté, 2005.

Offered (semester and year): Spring 2009, Spring 2010, Spring 2011 (2008 curriculum, course was previously named *Two dimensional representation workshop*), Spring 2012, Spring 2012, Spring 2013 (2011 curriculum)

Faculty assigned: Alberto Galindo P/T, Diego García Cuevas P/T, Felipe Asenjo F/T.

201-CONSTRUCTION II: MATERIALS (Materials and components in 2008 Curricular program**).** ECTS Credits: 6. Degree Required DR.

Course Description: Knowledge of material properties and their application in construction. Essays and material quality control.

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 4: Understanding the problems of structural design, building-engineering related to building design as well as the resolution techniques which are used
- SC 5: Knowing the physical problems, various technologies and building functions to provide them with interior comfort conditions and protection from climate factors
- SC 6: Knowing the industries, organizations, regulations and procedures for translating design concepts into buildings and integrating plans into overall planning
- CC 1: Responsibility . CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding. CC 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work based on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 24: Acquisition of knowledge in the mechanics of solid continuum and soil, as well as plastic qualities, elastic and strength of heavy building materials
- DSC 27: Acquisition of knowledge in industrialized building systems

Student Performance Criterion/a addressed:

A 4-Technical documentation (equates to DSC 27)
B 12-Building materials and assemblies (equates to DSC 24, DSC 27)

Topical Outline:
Properties of the principal construction materials 15%
Materials study 20%
Materials Laboratory. 10%
Materials sustainability. 15%
Construction techniques and process. 15%
Possibilities of materials. 10%
Materials reception and testing. 10%
Types of surfaces. 5%

Prerequisites: none

Textbooks/Learning Resources: Arredondo y Verdú, Francisco. Construction materials
Offered: Fall 2010, Fall 2011 (2008 curriculum, course was previously named *Materials and components*), Fall 2012, Fall 2013.

Faculty assigned: Jose María Arana P/T, Jose Antonio Caballero F/T, Carmen G. Gasca F/T, Francisco Avilés P/T

202-STRUCTURAL MECHANICS (Physics of Structures in 2008 Curricular program**).** ECTS Credits: 6. University Core Required UCR.

Course Description:
Ability to build structural models. Stress Calculus. Understanding basic concepts of structural mechanics

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 4: Understanding the problems of structural design, building-engineering related to building design as well as the resolution techniques which are used
- CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 9: Planning and time management: Ability to plan work based on the need to meet deadlines
- DSC 7: Acquisition of knowledge and application to architecture and urbanism in general mechanic principles, statics, geometry and mass tensor and vector fields

Student Performance Criterion/a addressed:

B 9-Structural systems (equates to DSC 7 and SC 4)

Topical Outline:
Stability, Resistance and Stiffness. 20%
Force equilibrium. 30%
Structure model: Geometry model. 30%
Isostatic analysis: Deformations. 5%
Section analysis: Geometric properties. 5%
Materials for structures: Material behavior. 10%

Prerequisites: none

Textbooks/Learning Resources: *Strength of Materials*, S. P. Timoshenko.
Why Buildings Stand Up, M. Salvadori.
The Structural Basis of Architecture, B. Sandaker *et al*.
The Art of Structures, A. Muttoni.
Building: 3000 years of Design Engineering and Construction, B. Addis.
Form and Forces, E. Allen et al.

Offered (semester and year): Fall 2009 Fall 2010 Fall 2011 (2008 curriculum, course was previously named *Physics of Structures*), Fall 2012, Fall 2013.

Faculty assigned: Jorge Conde P/T, José Agulló P/T, Esther Redondo P/T

203-ARCHITECTURE AND ART OF THE 20TH AND 21ST CENTURIES (Critic of Architecture in 2008 Curricular program**).** ECTS Credits: 6. Degree Required DR.

Course Description :
Analysis of art and architecture from the 20th to the 21st Century, identification of reference models, presentation of research conclusions, capability of searching, analyzing and synthesizing data.

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical metters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 2: Understanding the role of fine arts as a factor that may influence the quality of architectural design
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 2: Self confidence
- CC 3: Awareness of ethical values, including: understanding the rights and obligations of persons and professionals, promoting respect for human rights, protecting the weaker sections of society, and respecting the environment
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding
- CC 9: Planning and time management: Ability to plan work on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 49: Acquisition of knowledge in general history of architecture
- DSC 57: Acquisition of knowledge in sociology, theory, urban economics and history

Student Performance Criterion/a addressed:

A 5-Investigative skills (equates to BC 3)
A 7-Use of precedents (equates to DSC 54)

Topical Outline:
History: 20th Century - present day. 30%
Avant-garde period. 10%
Internationalization of Modern Architecture and Art. 10%
Transformation analysis carried out in architecture 20%
Artistic trends in their social context 20%
Attitudes 10%

Prerequisites: none

Textbooks/Learning Resources: Colquhoun, Alan. *Modern Architecture*. Oxford University Press. 2002
Curtis, William J.R. *Modern Architecture since 1900*. Phaidon Press Limited. Third edition 1996.

Offered (semester and year): Spring 2011, Fall 2011 (2008 curriculum, course was previously named *Critic of Architecture*), Spring 2012, Spring 2013, Spring 2014

Faculty assigned: Carmen Imbernon P/T, Miguel Luengo P/T, Liliana Obal P/T, David Cortés P/T, Sally Gutiérrez Dewar P/T.

204-INTEGRATED DRAWING WORKSHOP III (Models and prototypes in 2008 Curricular program**)**.
ECTS Credits: 6. Degree Required DR.

Course Description:
Ability to draw images in 2D and 3D, ability to use materials and light.

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 2: Understanding the role of fine arts as a factor that may influence the quality of architectural design
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding
- CC 6: Flexibility
- CC 9: Planning and time management: Ability to plan work on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 2. Ability to conceive and represent the visual attributes of objects and master proportion and drawing techniques, including digital techniques
- DSC 3: Acquisition of knowledge and application to architecture and urbanism of spatial representation systems
- DSC 4: Acquisition of knowledge and application to architecture and urbanism in the analysis and theory of form and the laws of visual perception
- DSC 6: Acquisition of knowledge and application to architecture and urbanism in graphic lifting techniques at all stages, from drawing notes to scientific return
- DSC 10: Acquisition of knowledge and application to architecture and urbanism on the basis of topography, hypsometry, mapping and ground modification techniques

Student Performance Criterion/a addressed:

A 3-Visual communication skills (equates to DSC 2, DSC 3, DSC 4, DSC 6 and DSC 10)
A 8-Ordering systems (equates to DSC 2, DSC 3, DSC 4, DSC 6 and DSC 10)

Topical Outline:
Visual training 10%
3D digital models 20%
Management information 10%
Graphic and technical documentation 10%
Genesis of form 10%
Graphic process 10%
Geometric representation 10%
Flat and 3D geometry 10%
Acquired knowledge and application 10%

Prerequisites: none

Textbooks/Learning Resources. G.F.VALDERRAMA, Fernando. *Tutoriales de informática para arquitectura: AutoCAD, 3D Studio, Corel Draw, Word, Excel y Presto*. Celeste Ediciones S.A.,
Offered (semester and year): Fall 2009, Fall 2010, Fall 2011 (2008 curriculum, course was previously named *Models and prototypes*), Fall 2012, Fall 2013 (2011 curriculum).

Faculty assigned: Alberto Galindo P/T, Edgar González P/T, Felipe Asenjo F/T.

205-DESIGN STUDIO G1 (Antropometric scale project workshop in 2008 Curricular program**)** . ECTS Credits: 6. Degree Required DR.

Course Description: Introduction to design and creativity, spatial, social and temporal context, ephemeral prototypes, register and communication of workshop production

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 2: Understanding the role of fine arts as a factor that may influence the quality of architectural design
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 1: Responsability . TS 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding. TS 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work based on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 50: Acquisition of knowledge in methods of studying processes of symbolization, practical functions and ergonomics
- DSC 55: Acquisition of knowledge in the relationship between cultural patterns and the architect´s social responsibilities

Student Performance Criterion/a addressed:

A 2- Design thinking skills (equates to CC 10)
A 6- Fundamental design skills (equates to CC 10 and DSC 50)
A 11-Applied research (equates to DSC 50)

Topical Outline (include percentage of time in course spent in each subject area):
Preconceptions and architectural culture 10%
Working tools 10%
Development and construction of a prototype 20%
Concepts development and representation 20%
Project contextualization and testing 20%
Acquired knowledge and application 20%

Prerequisites: none

Textbooks/Learning Resources: LeCorbusier . *Vers unearchitecture*, Ed. Flammarion,París, 1995. Existe una traducción en español: Le Corbusier, *Hacia una Arquitectura*, Ed. Apóstrofe,Barcelona, 1998. Ábalos, Iñaki, *La buena vida*, Barcelona, Gustavo Gili, 2000.

Offered (semester and year): Fall 2009, Fall 2010, Fall 2011 (2008 curriculum, course was previously named *Antropometric scale project workshop*), Winter 2013, Winter 2014 (2011 curriculum)

Faculty assigned: Gonzalo del Val P/T, Uriel Fogue P/T, Victor Navarro P/T, Concha Lapayese P/T, Beatriz Matos P/T, Alberto Castillo P/T

206-CONDITIONING TECHNIQUES (Building Services II in 2008 Curricular program**)** . ECTS Credits: 6. Degree Required DR.
Course Description:
Comprehension of the principles of building habitability applied to Design, Services and Construction. Acoustic insulation, Air quality and Illumination

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 4: Understanding the problems of structural design, building-engineering related to building design as well as the resolution techniques which are used
- SC 5: Knowing the physical problems, various technologies and building functions to provide them with interior comfort conditions and protection from climate factors
- SC 6: Knowing the industries, organizations, regulations and procedures for translating design concepts into buildings and integrating plans into overall planning
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 1: Responsability . CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding. CC 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work based on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 8: Acquisition of knowledge and application to architecture and urbanism in thermodynamic principles, acoustics and optics
- DSC 22: Ability to project facilities and urban building transformation and supplies, audio and visual media, acoustic conditioning and lighting
- DSC 35: Ability to solve passive environmental conditioning, including thermal and acoustic insulation, climate control, energy efficiency and natural lighting
-

Student Performance Criterion/a addressed:

B 3- Sustainability (equates to DSC 35)
B 8- Environmental systems (equates to DSC 35)
B 10-Building envelope systems (equates to DSC 35)
B 11- Building service systems (equates to DSC 8 and DSC 22)

Topical Outline:
Psychometry. 10%
Hygrothermal wellbeing. Air quality 20%
Hygrothermal transmission and insulation. 10%
Insulating materials. Condensation in enclosing walls 10%
Acoustic conditioning and insulation. 20%
Absorbent materials. 10%
Foundations of light technology. 20%
Prerequisites: Process Physics.
Textbooks/Learning Resources: Building services. Wellpott E.“Handbook of air conditioning system” Carrier Air conditioning Co.“Perception and lighting as formgivers for architecture. Van Nostrand Reinhold “ WILLIAM M.C. LAM. ”Daylighting perfomance and .design. John Wiley & sons” GREG D. ANDER.
Offered (semester and year): Fall 2010, Spring 2012 (2008 curriculum, course was previously named *Building Services II*), Spring 2013 (2011 curriculum)
Faculty assigned: Sergio Rodríguez P/T, Juan Escabías P/T

207-STRUCTURAL ANALYSIS (Structural dimensioning I in 2008 curricular program**).** ECTS Credits: 6. Degree Required DR.

Course Description:
Ability to choose the right structure, tensions of isostatic and hyperstatic structures, calculation of tensions in iron, wood, concrete and brick. Software dimensioning.

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 4: Understanding the problems of structural design, building-engineering related to building design as well as the resolution techniques which are used
- CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 6: Flexibiliy
- CC 7: Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 9: Planning and time management: Ability to plan work based on the need to meet deadlines
- CC 10: Innovation and creativity
- DSC 12: Ability to design, calculate, integrate building and urban ensemble foundations and implement solutions
- DSC 13: Ability to apply technical and construction standards
- DSC 17: Ability to design, calculate, integrate building and urban ensembles and execute building structures

NAAB Student Performance Criterion/a addressed:

B 9- Structural systems (equates to DSC 12 DSC 13 DSC 17 and GC 4)

Topical Outline (include percentage of time in course spent in each subject area):
Technical Building Code 10%
Dimensioning: Mechanical behavior of materials, Deformations Optimal section forms. 10%.
Hyperstatic analysis: Simple structures, Complex structures, Structures on an elastic format. 30%
Typology Study: 30%
Selection criteria 20%

Prerequisites: Structural mechanics.

Textbooks/Learning Resources:.
Structural Analysis. *Structural Engineering Handbook*. Richard Liew, J.Y.; Shanmugan, N.W. and YU,C.H
Tragsysteme. Heino Engel.1997.
Basic structural theory. Jacques Heyman. Cambridge University Press, 2008
Beams and Frames Structures. Jacques Heyman. Pergamon Press, 1974
Structural Analysis. William Stenquist (ed).

Offered (semester and year): Fall 2010 Fall 2011 Fall 2012 (2008 curriculum, course was previously named *Structural dimensioning I*), Spring 2013 (2011 curriculum)

Faculty assigned: Esther Redondo P/T, Raul Recuero P/T, Jorge Conde P/T

208-URBAN AREAS AND SUSTAINABLE DESIGN. ECTS Credits: 6. Degree Required DR.

Course Description: Ability to design cities, residential and public areas, understanding their social structure and ecological input

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 3: Knowing the urbanism and skills involved in the planning process
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 1: Responsability . CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding. CC 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work based on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 38: Ability to design, practice and develop urban projects
- DSC 40: Ability to develop functional programs for buildings and urban spaces
- DSC 46: Ability to apply standards and building regulations
- DSC 47: Ability to include Sustainability issues and designing criteria in urban design projects
- DSC 58: Acquisition of knowledge in the methodological foundations of urban planning and regional and metropolitan planning

Student Performance Criterion/a addressed:

A 6- Fundamental design skills (equates to DSC 38)
A 9-Historical traditions and global culture
C 2- Human behavior (equates to DSC 57)
A 10- Cultural diversity (equates to DSC 57)
B 3-Sustainability (equates to SC 7 DSC 47 and DSC 58)
B 4-Site Design (equates to SC 3 DSC 38 and DSC 40)
C 3-Client role in Architecture (equates to SC 7)
C 6-Leadership (equates to CC 7 and CC 8)

Topical Outline (include percentage of time in course spent in each subject area):
City areas project and planning renewal 15%
Urban green and public space: systemic intervention project. Functionality and embellishment 35%
Eco-neighborhoods: sustainability criteria 15%
Introduction to urban regeneration 30%
Planning instruments on this scale 5%

Prerequisites: Urban development basics and Design workshop G1

Textbooks/Learning Resources: Whyte, W.H.1980 *Social life of Small Urban Spaces*, Project for Public Spaces, Edit, New York. ISBN 0-9706324-1-x
Offered (semester and year): Spring 2011, Fall 2011, Winter 2013, Winter 2014.

Faculty assigned: Francisco Javier Gonzalez P/T, Mateus Porto P/T, Fernando Porras P/T, Eduardo Espinosa P/T

209-INTGRATED DRAWING WORKSHOP IV (Spatial and information drawing in 2008 curricular program**).** ECTS Credits: 6. Degree Required DR.

Course Description: Ability to draw images in 2D and 3D, static and dynamic images

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 2: Understanding the role of fine arts as a factor that may influence the quality of architectural design
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding
- CC 6: Flexibility
- CC 9: Planning and time management: Ability to plan work on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 2. Ability to conceive and represent the visual attributes of objects and master proportion and drawing techniques, including digital techniques
- DSC 3: Acquisition of knowledge and application to architecture and urbanism of spatial representation systems
- DSC 4: Acquisition of knowledge and application to architecture and urbanism in the analysis and theory of form and the laws of visual perception
- DSC 6: Acquisition of knowledge and application to architecture and urbanism in graphic lifting techniques at all stages, from drawing notes to scientific return
- DSC 10: Acquisition of knowledge and application to architecture and urbanism on the basis of topography, hypsometry, mapping and ground modification techniques

Student Performance Criterion/a addressed:

A 3-Visual communication skills (equates to DSC 2, DSC 3, DSC 4, DSC 6 and DSC 10)
A 5-Investigative skills (equates to BC 3)

Topical Outline (include percentage of time in course spent in each subject area):
Visual training 10%
Graphic language 10%
Conceptual representation 20%
Conceptualizing projects 20%
Graphic and technical documentation 20%
Compositional-geometric references and sources in design and other disciplines.10%
Acquired knowledge and application 10%

Prerequisites: none
Textbooks/Learning Resources: FULLAONDO, María & G.F.VALDERRAMA, Fernando : 3 D max courses for architects, Reverté, Madrid, 2012.G.F.VALDERRAMA, Fernando. *Tutoriales de informática para arquitectura: AutoCAD, 3D Studio, Corel Draw, Word, Excel y Presto*. Celeste Ediciones S.A., Madrid, 1999..

Offered (semester and year): Spring 2010, Spring 2011, Spring 2012 (2008 curriculum, course was previously named *Spatial and information drawing*), Spring 2013, Spring 2014.

Faculty assigned: Felipe Asenjo F/T, Edgar Gonzalez P/T, Alberto Galindo P/T

210-DESIGN STUDIO G2 (Local intermediate scale project workshop in 2008 Curricular program). ECTS Credits: 6. Degree Required DR.

Course Description: Introduction to design and creativity, spatial, social and temporal context, ephemeral prototypes, register and communication of workshop production

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 2: Understanding the role of fine arts as a factor that may influence the quality of architectural design
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 1: Responsability . TS 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding. TS 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work based on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 50: Acquisition of knowledge in methods of studying processes of symbolization, practical functions and ergonomics
- DSC 55: Acquisition of knowledge in the relationship between cultural patterns and the architect´s social responsibilities

Student Performance Criterion/a addressed:

A 2- Design thinking skills (equates to CC 10)
A 6- Fundamental design skills (equates to CC 10 and DSC 50)
A 11-Applied research (equates to DSC 50)

Topical Outline (include percentage of time in course spent in each subject area):
Analysis applied to reference models 20%
Information management and methodology 20%
Methodology and genesis of space, forms20%
Contextualization and testing the project. 20%
First determinant scales 20%

Prerequisites: none

Textbooks/Learning Resources:
Rasmussen, Steen Eiler, *La Experiencia de la arquitectura: Sobre la percepción de nuestro entorno*, Reverté, Barcelona, 2004. Koolhaas, Rem and Mau, Bruce, *S, M, L , XL*, Rotterdam, 010 Publishers, 1995.

Offered (semester and year): Spring 2010, Spring 2011, Spring 2012 (2008 curriculum, course was previously named *Local intermediate scale project workshop*), Spring 2013, Spring 2014 (2011 curriculum)

Faculty assigned: Gonzalo del Val P/T, Uriel Fogue P/T, Victor Navarro P/T, Concha Lapayese P/T, Beatriz Matos P/T, Alberto Castillo P/T

301-BUILDING FACILITIES (Building Services I in 2008 curricular program**).** ECTS Credits: 6. Degree Required DR.

Course Description: Comprehension of the principles of building habitability applied to Design, Services and Construction. Electricity, domestic water, artificial lighting, solar energy.

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 4: Understanding the problems of structural design, building-engineering related to building design as well as the resolution techniques which are used
- SC 5: Knowing the physical problems, various technologies and building function to provide them with internal comfort conditions and protection from climatic factors
- SC 6: Knowing the industries, organizations, regulations and procedures for translating design concepts into buildings and integrating plans into overall planning
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 1: Responsability . CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding. CC 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 13: Ability to apply technical and construction standards
- DSC 20: Ability to design, calculate, integrate building and urban ensembles and execute supply facilities, sewage treatment and disposal, heating and air conditioning
- DSC 22: Ability to project facilities and urban building transformation and supplies, audio and visual media, acoustic conditioning and lighting
- DSC 31 Measurement methods, valuation and survey knowledge
- DSC 35: Ability to solve passive environmental conditioning, including thermal and acoustic insulation, climate control, energy efficiency and natural lighting
- DSC 52 Acquisition of knowledge in ecology, sustainability and the principles of energy conservation and environmental resources

NAAB Student Performance Criterion/a addressed:

A 11-Applied research (equates to BC 3)
B 8-Environmental systems (equates to DSC 35)
B 11-Building service systems (equates to DSC 20 and DSC 22)

Topical Outline:
Installation systems and Facilities design 20%
Domestic water 10%
Horizontal and vertical sewerage. 10%
Electricity 10%
Artificial lighting facilities.10%
Conditioning systems 10%
Solar energy generation. 10%
Current standards, International Regulation 10%
Sustainability and efficiency applied to the edification facilities 10%

Prerequisites: Conditioning Techniques. **Textbooks/Learning Resources**: Installations in Buildings (English Edition) by Edwin Wellpont (Sep 30, 2009)
Offered (semester and year): Spring 2011 Spring 2012 (2008 curriculum, course was previously named *Building Services I*)**,** Fall 2012, Fall 2013 (2011 curriculum)
Faculty assigned: Francisco Javier Aviles Montes P/T, Javier Espejo P/T, Jose Manuel Blanco P/T

302-BUSSINESS MANAGEMENT . ECTS Credits: 6. University Core Required UCR.

Course Description: Understanding architectural and construction companies, organization and planning. Understanding administration contract procedures and real estate promotion.

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical
- SC 6: Knowing the industries, organizations, regulations and procedures for translating design concepts into buildings and integrating plans into overall planning
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 1: Responsibility . CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding. CC 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work based on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 28: Professional ethics, collegiate organizations, structure and knowledge of professional liabilities
- DSC 29: Knowledge of administrative and professional management and processing
- DSC 30: Knowledge of professional firm organization
- DSC 33: Management and property management knowledge
- DSC 55: Acquisition of knowledge in the relationship between cultural patterns and the architect´s social responsibilities
- DSC 59: Knowledge of civil regulations, administrative and urban planning, building and industry, and professional performance

Student Performance Criterion/a addressed:

B 7-Finantial considarations
C 3- Client role in Architecture (equates to SC 7)
C 4- Project management (equates to DSC 29
C 5- Practice management (equates to DSC 30, DSC 33, DSC 59
C 7- Legal responsibilities (equates to DSC 55)
C 8- Ethics and professional Judgment (equates to DSC 28)

Topical Outline:
Business world. 30%
Financial and accounting mathematics. 25%
Real estate promotion process: phases, legislation, feasibility studies. 10%
Legislation for Public Contracts. 5%
Ethics and business responsibility. 30%

Prerequisites: none
Textbooks/Learning Resources: Kawasaki, Guy The Art of beginning. Kantolla Barcelona 2004.
Kotler, Philip Foundaments in Merchandaisng. Prentice-Hall Hispanoamericana Mexico D.F. 1985
Offered (semester and year): Fall 2009, Fall 2010, Fall 2011 (2008 curriculum), Fall 2012, Fall 2013 (2011 curriculum)

Faculty assigned: Natalia Gonzalez Pericot P/T, Gonzalo García Muñoz P/T

303-URBAN PLANNING. ECTS Credits: 6. Degree Required DR.

Course Description: Ability to organize cities, understanding their geographical structure and areas of development. Understanding social and economic models. Understanding ecological processes

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 3: Knowing the urbanism and skills involved in the planning process
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 1: Responsability . CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding. CC 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 38: Ability to design, practice and develop urban projects
- DSC 40: Ability to develop functional programs for buildings and urban spaces
- DSC 45: Ability to design and run road courses and development projects, gardening and landscape projects
- DSC 46: Ability to apply standards and building regulations
- DSC 62: Knowledge of writing mechanisms and urban planning management at any scale

Student Performance Criterion/a addressed:

A 6-Fundamental design skills (equates to DSC 38 DSC 45)
A 10-Cultural diversity (equates to SC 7)
B 4-Site Design (equates to SC 3 DSC 38 and DSC 40)

Topical Outline:
Urban dynamics and participation of citizens 34%
Urban metabolism and sustainability criteria in urban planning: urban integration, efficient mobility, reversibility of patterns. 33%
Intervention instruments at an urban scale and at a territorial and regional scale. 33%

Prerequisites: Urban areas and sustainable design

Textbooks/Learning Resources: Elements of Urban Planning.Juli Esteban Noguera. Cities of tomorrow. History of Urbanism in XX century. Peter Hall. La Práctica del Planeamiento Urbanístico. Luis Moya González (ed).Ed. Síntexis. Ciudad Hojaldre. Visiones urbanas del s. XXI. Carlos García Vázquez. GG. Acupuntura urbana. Jaime Lerner. (Editora Record in Rio de Janeiro)

Offered (semester and year): Spring 2011, Fall 2011 (2008 curriculum), Fall 2012, Fall 2013 (2011 curriculum)

Faculty assigned: Silvia Herrero F/T Lourdes Jimenez P/T, Mateus Poto P/T

304-309 INTEGRATION WORKSHOP I and II. ECTS Credits: 6. Degree Required DR.

Course Description: Integration of urban social, sustainable, material and form issues in the architectural project process

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 2: Understanding the role of fine arts as a factor that may influence the quality of architectural design
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 1: Responsability .
- CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding.
- CC 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 34 Ability to remove architectural barriers
- DSC 35 Ability to solve passive environmental conditioning, including thermal and acoustic insulation, climate control, energy efficiency and natural lighting
- DSC 37 Ability to design, practice and develop basic execution projects, sketches and blueprints
- DSC 38 Ability to design, practice and develop urban projects
- DSC 39 Ability to design, practice and develop management construction
- DSC 40 Ability to develop functional programs for buildings and urban spaces
- DSC 52 Acquisition of knowledge in ecology, sustainability and the principles of energy conservation and environmental resources
- DSC 53 Acquisition of knowledge in the traditions of architecture, urban planning and landscape of Western culture and their technical merits, climatic, economic, social and ideological conditions
- DSC 60 Feasibility, surveillance and coordination of integrated projects

Student Performance Criterion/a addressed:

B 2-Accesibility (equates to DSC 34)
B 5-Life safety
B 6-Comprehensive design (equates to SC 7 DSC 37)

Topical Outline:

Tactics and strategy: Global, local, group and individual objectives.40%
Definition and quantification 20%
Spatial strategies 1, 2, 3 20%
Acquired knowledge and application 20%

Prerequisites: 1st and 2nd year of : Design workshop, Urbanism, Drawing, History.

Textbooks/Learning Resources: Banham, R., 1969. The architecture of the well tempered environment. (Architectural press, London). Banham, R., 1971. Los Angeles. The Architecture of four Ecologies. (Allen Lane) London. Venturi, R., Scott Brown, D1972. Learning from Las Vegas. (MIT Press). Cook, P. 2008.

Drawing the motive force of Architecture.Wiley, London. Wigley, M., 2001. The activist drawing. (MIT Press, Cambridge).

Offered: Winter 2014 (2011 curriculum)

Faculty assigned: Lourdes Jimenez, Luengo, Camila Aybar, Edgar González, Angel Luis Fernández, Juan Carlos García Perrote, Chema Garcia de Pablos, Jesús Hierro, José Jurado, Miguel Luengo, Liliana Obal.

305-DESIGN STUDIO G3 (Integrated intermediate scale project workshop in 2008 Curricular program**)**. ECTS Credits: 6. Degree Required DR.

Course Description: Ability to design and program at different scales, understanding basic typologies and their integration in urban contexts

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 2: Understanding the role of fine arts as a factor that may influence the quality of architectural design
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 1: Responsability .
- CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding.
- CC 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 48: Acquisition of knowledge in general form theories, composition and architectural types
- DSC 50: Acquisition of knowledge in methods of studying processes of symbolization, practical functions and ergonomics
- DSC 55: Acquisition of knowledge in the relationship between cultural patterns and the architect´s social responsibilities

Student Performance Criterion/a addressed:

A 2-Design thinking skills (equates to CC 10)
A 6-Fundamental design skills (equates to CC 10 and DSC 50)
C 9-Community and social responsibilities (equates to SDC 55)

Topical Outline:
Problems proposed 15%
Problem resolution 30%
Integration with construction 10%
Group and hierarchical systems 5%
Materialism, technical systems, energy 30%
Scale understanding 10%

Prerequisites: Design workshop G1 and G2

Textbooks/Learning Resources: Ockman, J. 1993. Architectural Culture 1943-68. A documentary Anthology. Columbia Books of Architecture, New York. JUDY CHUNG, Chuihua/KOOLHAAS, Rem, 2001. Harvard Design School Guide to Shopping. Taschen,Köln

Offered (semester and year): Fall 2010, Fall 2011 (2008 curriculum, course was previously named *Integrated intermediate scale project workshop*), Winter 2013, Winter 2014 (2011 curriculum)

Faculty assigned: Camila Aybar P/T, Uriel Forgué P/T, Victor Navarro P/T, Andrés Perea, Nieves Mestre P/T

306- CONSTRUCTION III: STRUCTURES (Structural Systems in 2008 curricular program**)** Credits: 6

Course Description:
Ability to design structural systems in architectural construction, project and building site

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 4: Understanding the problems of structural design, building-engineering related to building design as well as the resolution techniques which are used
- SC 5: Knowing the physical problems, various technologies and building functions to provide them with interior comfort conditions and protection from climate factors
- SC 6: Knowing the industries, organizations, regulations and procedures for translating design concepts into buildings and integrating plans into overall planning
- CC 1: Responsibility. CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding. CC 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 24: Acquisition of knowledge in the mechanics of solid continuum and soil, as well as plastic qualities, elastic and strength of heavy building materials
- DSC 12 Ability to design, calculate, integrate building and urban ensemble foundations and implement solutions
- DSC 13 Ability to apply technical and construction standards
- DSC 16 Ability to assess work
- DSC 17 Ability to design, calculate, integrate building and urban ensembles and execute building structures

Student Performance Criterion/a addressed:

B 9-Structural systems (equates to DSC 17)

Topical Outline:
Structural typologies in concrete, steel, timber and masonry. 30%
Construction process of structures. 20%
Optimal design on material, stress and typology criteria. 20%
Integrated design with building envelope and services. 10%
Construction documents, plans and details. 10%
Pre-dimensioning. 5%
Current regulations and specifications. 5%

Prerequisites: Construction I: systems. Construction II: materials.

Textbooks/Learning Resources: Deplazes, (Ed.) *Constructing Architecture. Materials, Processes, Structures. A Handbook.* Basel. Boston. Berlin. Birkhäuser 2005.

Offered: Spring 2010, Spring 2011, Spring 2012 (2008 curriculum, course was previously named *Structural Systems*), Fall 2013 (2011 curriculum)

Faculty assigned: Santiago Becerra P/T , Susana Moreno F/T, Luis Alvarez Alfaro P/T

307-STRUCTURAL DIMENSIONING (Structural dimensioning II in 2008 curricular program**).** ECTS Credits: 6. Degree Required DR.

Course Description:
Ability to calculate structures: concrete, steel, wood and masonry. Software dimensioning.

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 4: Understanding the problems of structural design, building-engineering related to building design as well as the resolution techniques which are used
- CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 6: Flexibiliy
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams .This capability includes interpersonal skills and team leadership ability.
- CC 9: Planning and time management: Ability to plan work based on the need to meet deadlines
- CC 10: Innovation and creativity
- DSC 12: Ability to design, calculate, design, integrate in building integration, urban ensemble foundation and implement solutions
- DSC 13: Ability to apply technical and construction standards
- DSC 17: Ability to design, calculate, building integration, urban ensembles and execute building structures

Student Performance Criterion/a addressed:

B 9-Structural systems (equates to DSC 12 DSC 13 DSC 17 and SC 4)

Topical Outline:
Current standards 10%
Concrete: Reinforcing, Joints, Pre-stressed concrete. 40%
Steel: Dimensioning, Joints. 40%
Wood and Masonry. 10%

Prerequisites: Structural Analysis.

Textbooks/Learning Resources: *EHE-08: Instrucción para el proyecto y la ejecución del hormigón estructural.* Fomento. 2008.
CTE DB SE-A: Seguridad Estructural: Acero. Código Técnico. Ministerio de la vivienda.
CTE DB SE-AE: Seguridad Estructural: Acciones en la edificación. Código Técnico. M. Vivienda.

Offered (semester and year): Spring 2011 Spring 2012 (2008 curriculum, course was previously named *Structural dimensioning II*), Winter 2013, Winter 2014 (2011 curriculum)

Faculty assigned: Jesús Hierro P/T, Jorge Conde P/T, Jesús Crespo P/T, José Agullo P/T

308-HISTORY OF ART AND ARCHITECTURE I. ECTS Credits: 6. Degree Required DR.

Course Description:
Analysis of antique art and architecture up to the XVI century, identification of reference models, presentation of research conclusions, capability of searching, analyzing and synthesizing data.

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 2: Understanding the role of fine arts as a factor that may influence the quality of architectural design
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 2: Self confidence
- CC 3: Awareness of ethical values, including: understanding the rights and obligations of persons and professionals, promoting respect for human rights, protecting the weaker sections of society, and respecting the environment
  CCS 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding
- CC 9: Planning and time management: Ability to plan work based on the need to meet deadlines
- C 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 49: Acquisition of knowledge in general history of architecture

Student Performance Criterion/a addressed:

A 7-Use of precedents (equates to DSC 49)

Topical Outline:
Origins of art and architecture. 10%
Constructions in Egypt. 8%
Classic Greece. 10%
Rome and the new architecture and art. 14%
The Middle Ages 14%
The splendor of Europe. 20%
The triumph of Humanism 25%

Prerequisites: none

Textbooks/Learning Resources:

ALONSO PEREIRA, José Ramón: Introducción a la historia de la arquitectura. De los orígenes al siglo XXI. Barcelona: Reverté, 2005. TAFURI, Manfredo: Teoria e storia dell'architettura. Bari: Laterza, 1968.

Offered (semester and year): Spring 2014

Faculty assigned: Miguel Lasso de la Vega F/T, Ana Luengo P/T, David Cortés P/T

310-DESIGN STUDIO G4 (Medium and large scale project workshop in 2008 Curricular program**).**
ECTS Credits: 6. Degree Required DR.

Course Description: Ability to design and program in different scales, understanding of basic typologies and its integration with urban context.

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 2: Understanding the role of fine arts as a factor that may influence the quality of architectural design
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 1: Responsability .
- CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding.
- CC 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 37 Ability to design, practice and development of basic execution projects, sketches and blueprints
- DSC 40 Ability to develop functional programs of buildings and urban spaces
- DSC 51 Acquisition of knowledge in the methods of studying social needs, life quality, livability and basic housing programs
- DSC 56 Acquisition of knowledge in the basis of vernacular architecture

Student Performance Criterion/a addressed:

A 2-Design thinking skills (equates to CC 10)
A 6-Fundamental design skills (equates to CC 10 and DSC 40)
C 9-Community and social responsibilities (equates to SDC 51)

Topical Outline:

Problems proposed 10%
Problem resolution 20%
Integration with urbanism 30%
Integration with technology 40%

Prerequisites: Design workshop G1 and G2

Textbooks/Learning Resources: KOOLHAAS, Rem. 1978. Delirious New York: a retroactive manifesto for Manhattan. Oxford University Press, New York. Abalos, I, Herreros, J. 2003. Tower and Office: From Modernist Theory to Contemporary Practice. A Buell Center/Columbia Book of Architecture. New York

Offered (semester and year): Spring 2011, Spring 2012 (2008 curriculum, course was previously named *Medium and large scale project workshop*), Spring 2013, Spring 2014 (2011 curriculum)

Faculty assigned: Camila Aybar P/T, Uriel Forgué P/T, Victor Navarro P/T, Andrés Perea, Nieves Mestre P/T

401-GENERAL ENGLISH . ECTS Credits: 6. University Core Required UCR.

Course Description:

Ability to speak and understand English: text and conversation

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding
- CC 6: Flexibiliy
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams .This capability includes interpersonal skills and team leadership ability.

Student Performance Criterion/a addressed:

A 1-Communication skills (equates to CC 4)

Topical Outline:

Vocabulary 20%
Listening content presented live or recorded. 20%
Active participation in dialogues and debates 20%
Reading and commenting on texts or journalistic articles 20%
Multimedia presentation 10%
Internet searches 10%

Prerequisites: none

Textbooks/Learning Resources:

Offered (semester and year): Fall 2008, Fall 2009, Fall 2010, Fall 2011 (2008 curriculum)

Faculty assigned: Victoria Bamond and UEM Language center teachers

402-CONSTRUCTION IV: ENVELOPE **(Envelope systems** in 2008 curricular program**)** . ECTS Credits: 6. Degree Required DR.

Course Description: Ability to design envelope systems in architectural project, construction and building site

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 4: Understanding the problems of structural design, building-engineering related to building design as well as the resolution techniques which are used
- SC 5: Knowing the physical problems, various technologies and building functions to provide them with interior comfort conditions and protection from climate factors
- SC 6: Knowing the industries, organizations, regulations and procedures for translating design concepts into buildings and integrating plans into overall planning
- CC 1: Responsibility.
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 12 Ability to design, calculate, integrate in building, urban assemble foundation and implement solutions
- DSC 13 Ability to apply technical and construction standards
- DSC 15 Ability to preserve the finished work
- DSC 16 Ability to work assessment.
- DSC 19 Ability to design, calculate, building integration, urban complexes and running interlocks, roof and structural work
- DSC 21 Ability to maintain the structural work
- DSC 31 measurement methods, valuation and survey knowledge
- DSC 39 Ability to design, practice and develop management construction

Student Performance Criterion/a addressed:

B 8-Environmental systems (equates to SC 5)
B 10-Building envelope systems (equates to DSC 13)
B 12-Building materials and assemblies (equates to DSC 12)

Topical Outline:
Partitions and claddings 7%
Habitability and passive systems 10%
Façades and Roofs 75%
Concept, design and integration of systems 5%
Security during execution and maintenance 1%
Control plan. Security of use 2%

Prerequisites: Construction III: structures.
Textbooks/Learning Resources: DEPLAZES, Andrea (Ed.): *Constructing Architecture. Materials, Processes, Structures. A Handbook*. Birkhäuser, 2008 [ISBN: 978-3-7643-8631-2]
ARAUJO, Ramón: *Construir en Altura. Sistemas, tipos y estructuras*. Editorial Reverté, Barcelona, 2012 [ISBN 978-84-291-3103-1]

Offered: Winter 2011, Winter 2012, Winter 2013, Winter 2014
Faculty assigned: Santiago Becerra P/T, José Jurado F/T

403-HISTORY OF ART AND ARCHITECTURE II . ECTS Credits: 6. Degree Required DR.

Course Description:
Analysis of antique art and Architecture to XX century, identification of reference models, presentation of research conclusions, capability to search, analyze and synthesize data.

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 2: Understanding the role of fine arts as a factor that may influence the quality of architectural design
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 2: Self confidence
- CC 3: Awareness of ethical values, including: understanding the rights and obligations of persons and professionals, promoting respect for human rights, protecting the weaker sections of society, and respecting the environment
  CCS 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding
- CC 9: Planning and time management: Ability to plan work based on the need to meet deadlines
- C 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 36: Ability to catalog the built heritage and urban planning and protection
- DSC 42: Entitlement to architectural criticism
- DSC 49: Acquisition of knowledge in general history of architecture
- DSC 57: Acquisition of knowledge in sociology, theory, urban economics and history

Student Performance Criterion/a addressed:

A 7-Use of precedents (equates to DSC 49)

Topical Outline:
16th and 17th Century 20%
Neoclassicism 20%
19th Century 20%
Avant-gardes 20%
Modern Ages 20%

Prerequisites: none

Textbooks/Learning Resources: FRAMPTON, K., Modern Architecture: A Critical History, Thames & Hudson, 2007
HITCHCOCK, H.R., Architecture: Nineteenth and Twentieth Centuries, Penguin Books, Baltimore 1958

Offered (semester and year): Fall 2013.

Faculty assigned: Miguel Luengo P/T, Ana Luengo P/T, David Cortés P/T

404-PROJECT WORKSHOP: CITY .ECTS Credits: 6. Degree Required DR.

Course Description: Ability to plan and design the city at different scales.

Course Goals & Objectives:

Relate prior knowledge, as a starting point for the expansion of new knowledge and its application to the CITY PROJECT.
Relate the City Project and the strategic design of their pieces in all approaches or scales, territorial, urban and detail.
Understand the processes involved in URBAN SYSTEMS production
Size and relate in strategic locations architecture and public space in the urban environment attending formal technical and legal considerations.
Transmit CITY PLAN ideas (own, group and social ones) by means of exemplification, oral language skills and adequate graphic expression.

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 3: Knowing the urbanism and skills involved in the planning process
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 1: Responsability . CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding. CC 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 34: Ability to remove architectural barriers
- DSC 45: Ability to design and run road courses and development projects, gardening and landscape
- DSC 46: Ability to apply standards and building regulations
- DSC 47: Ability to develop environmental studies, landscape and environmental impact correction
- DSC 60: feasibility, surveillance and coordination knowledge of integrated projects
- DSC 62: Knowledge of writing mechanisms and urban planning management at any scale

Student Performance Criterion/a addressed:

A 9-Historical traditions and global culture
A 10-Cultural diversity
B 1-Pre-Design (equates to DSC 45, DSC 46 and DSC 62)
B 3-Sustainability (equates to SC 7 DSC 47)
B 4-Site Design (equates to SC 3 DSC 38 and DSC 40)
C 1-Collaboration (equates to CC 7 DSC 60)
C 6-Leadership (equates to CC 7 and CC 8)
C 9-Community and social responsabilities

Topical Outline:

The work takes place in the space within the municipal limits (or metropolitan in specific situations) through analysis and proposals for intervention from approaches based on:

-Space and territorial structure: mobility and transport infrastructure; open spaces system and landscape, attractors and centralities; modes of urban habitat and productive space. 30%
-The city and its homogeneous parts and opportunities (situations or places): "read" structural,

morphological and urban dynamics. 30%
-Principles and Criteria for Urban Model and City Strategy from parameters: identity, integration, density, compactness and "porosity", continuity and permeability, diversity, equity, harmony and sustainability. 40%

Different scales and urban situations 20%
Urban integration processes 20%
Key aspects of the urban intervention 20%
Existing planning instruments and their legal framework 20%
City planning 20%

Prerequisites: Urban planning, Design workshop G4, Integration workshop II, Drawing workshop IV, History of Architecture I

Textbooks/Learning Resources:
Aymonino,C.(1971). “Orígenes y desarrollo de la Ciudad moderna”. Gustavo Gili. S.A.
AAVV. (2004). “Guía del Urbanismo : Madrid Siglo XX”. Area de Gobierno de Urbanismo, Vivienda e Infraestructuras. Ayuntamiento de Madrid
Benevolo, L.(1982). “Diseño de la Ciudad-5: El arte y la ciudad contemporánea”. Gustavo Gili. S.A.
Busquets, J. y Correa F.(2010). “Cities X lines: una nueva mirada hacia el Proyecto Urbanístico”. Universidad de Harvard.

Offered: Winter 2011, Winter 2012, Spring 2013, Spring 2014.

Faculty assigned: Jose María García Pablos P/T, Eduardo Espinosa P/T, Mateus Porto P/T, Francisco Javier González P/T, Fernando Otero P/T, Fernando Porras P/T

405-DESIGN STUDIO G 5 (Architectural and urban design strategies in 2008 curricular program**).**
ECTS Credits: 6. Degree Required DR.

Course Description:

Ability to design and program in different scales, understanding of basic typologies and its integration with urban context.

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 2: Understanding the role of fine arts as a factor that may influence the quality of architectural design
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 1: Responsability . CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding. CC 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 37 Ability to design, practice and development of basic execution projects, sketches and blueprints
- DSC 40 Ability to develop functional programs of buildings and urban spaces
- DSC 51 Acquisition of knowledge in the methods of studying social needs, life quality, livability and basic housing programs
- DSC 56 Acquisition of knowledge in the basis of vernacular architecture

Student Performance Criterion/a addressed:

A 5-Investigative skills (equates to BC 3)
A 6-Fundamental design skills (equates to CC 10 and DSC 50)
B 1-Pre-Design (equates to SS 40)

Topical Outline:
Common analysis about problems proposed 5 %
Suggestion of programs that can provide the problems' resolution 5 %
Medium size urban development design as a context for a further architectural project 20%
Architectural project to be inserted in the previous urban context 40%
Material and technical development of the architectural solution 20%
Final solution as result of mutual influence between figurative and architectural processes 10%

Prerequisites: Design workshop G 3 and G4

Textbooks/Learning Resources:
Offered (semester and year): Spring 2011, Spring 2012 (2008 curriculum, course name was *Architectural and urban design strategies*), Winter 2013, Winter 2014 (2011 curriculum)

Faculty assigned: Ángel Luis Fernández P/T, Fernando Espuelas F/T, Fuensanta Nieto P/T, Victor Navarro P/T, Andrés Perea P/T, Nieves Mestre P/T, Alberto Martínez Castillo P/T, Beatriz Matos P/T, Camila Aybar P/T.

406-TECHNICAL SYSTEMS (Technical systems I in 2008 Curricular program**).** ECTS Credits: 6. Degree Required DR.

Course Description:

Integration of technical systems into architectural design: building envelope systems, environmental systems, life-safety systems and building service systems.

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 4: Understanding the problems of structural design, building-engineering related to building design as well as the resolution techniques which are used
- SC 5: Knowing the physical problems, various technologies and building functions to provide them with interior comfort conditions and protection from climate factors
- SC 6: Knowing the industries, organizations, regulations and procedures for translating design concepts into buildings and integrating plans into overall planning
- CC 1: Responsibility. CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding. CC 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 13 Ability to apply technical and construction standards
- DSC 17 Ability to design, calculate, building integration, urban ensembles and execute building structure execution
- DSC 27 Adequate knowledge of industrialized building systems
- DSC 35 Ability to solve passive environmental conditioning, including thermal and acoustic insulation, climate control, energy efficiency and natural lighting
- DSC 43 Ability to perform security projects, evacuation and property protection

Student Performance Criterion/a addressed:

A 2-Design thinking skills (equates to CC 10)
A 4-Techical documentation (equates to DSC 13)
A 5-Investigative skills (equates to BC 3)
A 11-Applied research
B 9-Structural systems (equates to DSC 17)
B 10-Building envelope systems
B 11-Building services systems
B 12-Building materials and assemblies (equates to DSC 13)

Topical Outline:

Industrialized system for building structures, envelope and services. 20%
Construction process for advanced building typologies.10%.
Advanced lightweight façades and roofs with passive and active energy design. 10%
Salubrity, accessibility, security and fire protection.20%
Integrated architectural and technical design. 40%

Prerequisites: none.
Textbooks/Learning Resources:,Allen, E. Zalewski, W. *Form and Forces, Designing efficient, expressive structures*. New Jersey. Ed. Wiley and sons. 2010. *DETAIL. Construction Manual*. Ed. Birkhäuser: Roof, Flat Roof, Polymers & Membranes, Glass, Façade, Timber, Components and Systems
Offered: Spring 2011, Spring 2012 (2008 curriculum, course was previously named *Technical systems I*), Spring 2013, Spring 2014 (2011 curriculum)
Faculty assigned: Luis Alvarez P/T Xavi Agulo P/T, Jesús Crespo P/T, Santiago Becerra P/T, Silvio Escolano P/T, Jose Jurado P/T

407-STRUCTURAL DESIGN AND FOUNDATIONS (Soil mechanics and Foundations in 2008 curricular program**).** ECTS Credits: 6. Degree Required DR.

Course Description:
Ability to design structures and foundations. Understanding of geological properties and soil mechanics. Software dimensioning.

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 4: Understanding the problems of structural design, building-engineering related to
- building design as well as the resolution techniques which are used
- CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 6: Flexibiliy
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams .This capability includes interpersonal skills and team leadership ability.
- CC 9: Planning and time management: Ability to plan work based on the need to meet deadlines
- CC 10: Innovation and creativity
- SS 12: Ability to design, calculate, design, integrate in building integration, urban ensemble foundation and implement solutions
- DSC 13: Ability to apply technical and construction standards
- DSC 14 Ability to maintain building structures, foundations and civil works
- DSC 16 Ability to work assessment
- DSC 17: Ability to design, calculate, building integration, urban ensembles and execute building structure execution
- DSC 31 measurement methods, valuation and survey knowledge
- DSC 32 health and safety project at work knowledge
- DSC 39 Ability to design, practice and develop management construction
- DSC 44 Ability to draft civil engineering projects

NAAB Student Performance Criterion/a addressed:

B 9-Structural systems (equates to DSC 12 DSC 13 DSC 14 DSC 17 and DSC 4)

Topical Outline:

Soil mechanics	30%
Shallow foundations	30%
Deep foundations	15%
Retaining Walls	25%

Prerequisites: Structural Dimensioning.

Textbooks/Learning Resources: M.R.Dalmau, J. Villardel. Plastic analysis of structures; Muzás Labad, Fernando. Soil mechanics and foundation.

Offered (semester and year): Spring 2011 Spring 2012 (2008 curriculum, course was previously named Soil mechanics and *Foundations*), Fall 2012, Fall 2013, Fall 2014 (2011 curriculum)

Faculty assigned: José Ángel Gil P/T, Aranzazu de la Peña P/T, José Agulló P/T

408-DEONTOLOGY AND VALUES. ECTS Credits: 6. University Core Required UCR.

Course Description:
Understanding of the legal responsibilities and ethics issues in the profession of architect

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical
- SC 6: Knowing the industries, organizations, regulations and procedures for translating design concepts into buildings and integrating plans into overall planning
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 1: Responsibility . CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding. CC 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- DSC 28: professional ethics, collegiate organization, structure and professional liability knowledge
- DSC 29: Knowledge of administrative and professional management and processing
- DSC 31: measurement methods, valuation and survey knowledge
- DSC 59: civil regulation, administrative, urban planning, building and industry knowledge on the professional performance
- DSC 61: real estate appraisal knowledge

Student Performance Criterion/a addressed:

B 7-Finantial considerations (equates to DSC 31)
C 3-Client role in Architecture (equates to SC 7)
C 4-Project management (equates to DSC 29)
C 5-Practice management (equates to DSC 30, DSC 33, DSC 59)
C 7-Legal responsibilities (equates to DSC 55)
C 8-Ethics and professional Judgment (equates to DSC 28)

Topical Outline:
Studios and businesses organization 12%
Ethics and responsibility 12%
Law and real estate legislation 26%
Deontology on regulated professions 12%
Legislation relating to professional practice 26%
Real estate evaluation 12%

Prerequisites: none

Textbooks/Learning Resources: El arquitecto práctico (The Practical Architect), C. J. Irisarri, UEM-Rueda, Madrid, 2013. Compendio de arquitectura legal (Compendium of Legal Architecture), F. García-Erviti, Reverté, Barcelona, 2006.

Offered (semester and year): Fall 2010, Spring 2012, Fall 2012, Fall 2013, Fall 2014.

Faculty assigned: Carlos Irisarri P/T

409-DESIGN STUDIO G 6 (Global scale project workshop in 2008 Curricular program**)** . ECTS Credits: 12. Degree Required DR.

Course Description: Ability to design and program according to the demands of the user, understanding of basic typologies, its social relevance and integration with urban context.

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 2: Understanding the role of fine arts as a factor that may influence the quality of architectural design
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 1: Responsability . CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding. CC 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 35: Ability to solve passive environmental conditioning, including thermal and acoustic insulation, climate control, energy efficiency and natural lighting
- DSC 37 Ability to design, practice and development of basic execution projects, sketches and blueprints
- DSC 40 Ability to develop functional programs of buildings and urban spaces

Student Performance Criterion/a addressed:

A 2-Design thinking skills (equates to CC 10)
A 6 -Fundamental design skills (equates to CC 10 and DSC 35)
A 10-Historical traditions and global culture (equates to SC 1)

Topical Outline:
Study of variable perceptions on the architectural meaning and its reception 10%
Design of a program based on previous requirements, enhancing the satisfaction of functional and dimensional demands. 20%
Project improvement through implementation of its technical instruments 20%
Processes for the presentation of the students' own ideas. 10%
Development of a public/corporate building project 40%

Prerequisites: Design workshop G 5

Textbooks/Learning Resources:
Offered (semester and year): Fall 2011 (2008 curriculum, course was previously *Global scale project workshop*), Spring 2012, Spring 2013, Spring 2014 (2011 curriculum)

Faculty assigned: Ángel Luis Fernández P/T, Fernando Espuelas F/T, Fuensanta Nieto P/T, Victor Navarro P/T, Andrés Perea P/T, Nieves Mestre P/T, Alberto Martínez Castillo P/T, Beatriz Matos P/T, Camila Aybar P/T.

501-502 INTERNSHIP ECTS Credits: 6+6.Professional Internship.

Course Description:
Ability to work in small, medium and big architectural offices in multidisciplinary teams, understanding of the different roles, responsibilities, organization and management in the architectural companies.

Course Goals & Objectives:

- GC 6: Knowing the industries, organizations, regulations and procedures for translating design concepts into buildings and integrating plans into overall planning
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 1: Responsability . CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding. CC 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 29: Knowledge of administrative and professional management and processing
- DSC 30 Professional office organization knowledge
- DSC 55 Acquisition of knowledge in the relationship between cultural patterns and the architect´s social responsibilities

Student Performance Criterion/a addressed:

C 1-Collaboration (equates to CC 7)
C 4-Project management (equates to DSC 29)
C 5-Practice management (equates to DSC 30 and SC 6)
C 6-Leadership (equates to CC 7)

Topical Outline:
Intermediate report 25%
Final report and briefing 25%
Final follow-up report by the collaborating entity advisor 50%

Prerequisites: Design workshop G 3 G 4

Textbooks/Learning Resources: Guide for the development of the Professional Internship Course
Offered (semester and year): Spring 2011, Spring 2012 (2008 curriculum), Spring 2013, Spring 2014 (2011 curriculum)

Faculty assigned: Alberto Galindo P/T, Enrique Encabo P/T

503-SUSTAINABILITY IN THE BUILDING ENVIRONMENT. ECTS Credits: 6. Degree Required DR.

Course Description: Ability to design buildings and cities according to sustainable needs, understanding of the environmental impact of building construction

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection
- on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 3: Knowing the urbanism and skills involved in the planning process
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 1: Responsability . CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding. CC 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 20: Ability to design, calculate, building integration, urban ensembles and execute supply facilities, sewage treatment and disposal, heating and air conditioning
- DSC 22: Ability to project facilities and urban edification transformation and supplies, audiovisual media, acoustic conditioning and lighting
- DSC: 23: Ability to maintain facilities
- DSC 31: measurement methods, valuation and survey knowledge
- DSC 47: Ability to develop environmental studies, landscape and environmental impact correction

Student Performance Criterion/a addressed:

B 2-Accesibility
B 3-Sustainability (equates to SC 7 DSC 47)
B 8-Environmental systems (equates to DSC 47)
B 11-Building service systems (equates to DSC 20, DSC 22, DSC 23)
C 1-Collaboration (equates to CC 7)
C 3-Client role in architecture

Topical Outline:
Sustainability 10%
Natural spaces and biodiversity 10%
Eco-cities, 10%
Environmental quality 10%
Energy efficiency 10%
The water cycle 10%
Deconstruction and materials recycling. 10%
Urban waste and its re-assessment 10%
Construction applications. 10%
Building Solutions 10%
Prerequisites: none. **Textbooks/Learning Resources:** TIMBERLAKE Kieran (2003). Refabricating Architecture. Mac Graw Hill. WILLIAM H.WHYTE (1980) . The social Life of small urban spaces. Edit. Edwards brothers, Inc. Ann Arbor, Michigan 2001. **Offered (semester and year):** Spring 2014. **Faculty assigned:** Francisco Javier González P/T, Susana Moreno P/T.

504-DESIGN STUDIO G 7 (Specialized global scale project workshop in 2008 Curricular program**)**
ECTS Credits: 12. Degree Required DR.

Course Description: Ability to readapt and transform existing buildings. Ability to design architectural projects according to a specific program and context, cultural and social needs

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 2: Understanding the role of fine arts as a factor that may influence the quality of architectural design
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 1: Responsability . CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding. CC 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 35: Ability to solve passive environmental conditioning, including thermal and acoustic insulation, climate control, energy efficiency and natural lighting
- DSC 36: Ability to catalog the built heritage and urban planning and protection
- DSC 37 Ability to design, practice and development of basic execution projects, sketches and blueprints
- DSC 38: Ability to design, practice and development urban projects
- DSC 40 Ability to develop functional programs of buildings and urban spaces
- DSC 41: Ability to intervene and conserve, restore and rehabilitate built heritage
- DSC 52: Adequate knowledge of ecology, sustainability and the principles of energy conservation and environmental resources
- DSC 53: Adequate knowledge of the traditions of architecture, urban planning and landscape of Western culture, and their technical merits, climatic, economical, social and ideological

Student Performance Criterion/a addressed:
A 1-Communication skills (equates to CC 4)
A 2-Design thinking skills (equates to CC 10)
A 6-Fundamental design skills (equates to CC 10 and DSC 35)
A 9-Historical traditions and global culture (equates to DSC 53)
A 10-Cultural diversity (equates to DSC 53)
A 11-Applied research (equates to BC 3)
B 1-Pre-Design (equates to DSC 40)
B 6-Comprehensive design (equates to SC 7 DSC 37)

Topical Outline:
Integrated projects workshop 20%
Experiences linking the project to artistic environments 10%
Development of the program 20%
Applying recycling 20%
Transformation processes 10%
Capacity to intervene in constructed heritage 20%

Prerequisites: Design workshop G 6.

Textbooks/Learning Resources:"Arquitectura y Vida: el arte en mutación". Luis Fernández-Galiano. Ed. Real Academia de Bellas Artes de San Fernando. Madrid, 2012"Delirius New York". Rem Koolhaas. Monacelly Press. New York, 1994

Offered (semester and year): Spring 2012 (previously named Specialized global scale project workshop), Spring 2013, Spring 2014 (2011 curriculum)

Faculty assigned: Jose Luís Esteban Penelas F/T, Oscar Rueda F/T, Javier San Juan P/T, Angel Verdasco P/T, Eva Hurtado P/T, Juan José Mateos P/T, Paz Martín P/T

505-R&D+i GRAPHIC EXPRESSION . ECTS Credits: 6. Degree Required DR.

Course Description:
Ability to develop a personal graphic language and to research new graphic languages. Ability to express architectural ideas

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 2: Understanding the role of fine arts as a factor that may influence the quality of architectural design
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding
- CC 6: Flexibility
- CC 9: Planning and time management: Ability to plan work on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 2: Ability to conceive and represent the visual attributes of objects and master of proportion and drawing techniques, including computer ones
- DSC 42: Entitlement to architectural criticism

Student Performance Criterion/a addressed:

A 3-Visual communication skills (equates to DSC 2)
A 8-Ordering systems (equates to DSC 2)

Topical Outline:
Theories, movements, authors, works, critiques, publications 20%
Drawing techniques and contemporary drawing inside and outside architecture 80%

Prerequisites: none.
Textbooks/Learning Resources:
-Stephen Wilson, Art+science now, Ed.Thames and Hudson, 2010.
-Stephen Wilson, Information Arts: Intersections of Art, Science and Technology, Ed. MIT Press, 2003.

Offered (semester and year): Fall 2012, Fall 2013

Faculty assigned: Pablo Gil

506-TECHNONOGY PROJECTS WORKSHOP . ECTS Credits: 6. Degree Required DR.

Course Description: Ability to apply not standard technology in design and execution processes of structures, services and envelope. Management of energy.

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 4: Understanding the problems of structural design, building-engineering related to building design as well as the resolution techniques which are used
- SC 5: Knowing the physical problems, various technologies and building functions to provide them with interior comfort conditions and protection from climate factors
- SC 6: Knowing the industries, organizations, regulations and procedures for translating design concepts into buildings and integrating plans into overall planning
- CC 1: Responsability . CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding. CC 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 27 Adequate knowledge of industrialized building systems
- DSC 31 measurement methods, valuation and survey knowledge
- DSC 35 Ability to solve passive environmental conditioning, including thermal and acoustic insulation, climate control, energy efficiency and natural lighting
- DSC 37: Ability to design, practice and development of basic execution projects, sketches and blueprints

Student Performance Criterion/a addressed:

A 4-Technical documantation
A 5-Investigative skills (equates to BC 3)
B 12-Building materials and assemblies (equates to DSC 13)

Topical Outline:
Integrated Non-traditional building systems 20%
Introduction to complex typologies. 20%
Resistance to fire, durability, costs analysis, recycling. 20%
Introduction to elastoplastic calculation. 20%
Software: handling MEF programs 20%

Prerequisites: Structural design and foundations, Technical systems and Construction IV: envelope.

Textbooks/Learning Resources:
Offered: Spring 2014 **.**

Faculty assigned: Francisco Domouso P/T

507-LAND AND LANDSCAPE PROJECT. ECTS Credits: 6. Degree Required DR.

Course Description:
Ability to propose actions in landscape. Understanding of landscape and its ecological process. Understanding of the architectures placed in different landscapes.

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 3: Knowing the urbanism and skills involved in the planning process
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 1: Responsability . CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding. CC 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 34: Ability to remove architectural barriers
- DSC 45: Ability to design and run road courses and development projects, gardening and landscape
- DSC 46: Ability to apply standards and building regulations
- DSC 47: Ability to develop environmental studies, landscape and environmental impact correction
- DSC 62: mechanisms of writing and urban planning management knowledge at any scale

Student Performance Criterion/a addressed:

B 3-Sustainability (equates to SC 7 DSC 47)
B 4-Site Design (equates to SC 3 DSC 62)

Topical Outline:
Landscape Module: Philosophy, Cultural reviews ,Great cultures, Preservation. , Legislation, Landscaping project. 50%
Land Project Module: Analysis , Land models, Tourism, Tools, Fingerprints, Land planning. 50%

Prerequisites: Design workshop G 7, City project workshop, History of Art and Architecture I and II

Textbooks/Learning Resources:. **Offered (semester and year):** Winter 2014

Faculty assigned: Ana Luengo

508-GRADUATION PROJECT (Bachelor´s degree) Credits: 12. Graduation Project

Course Description: Ability to design architectural projects integrating different fields: design, technology, urbanism, history, user and social needs.

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 2: Understanding the role of fine arts as a factor that may influence the quality of architectural design
- SC3 Knowing the urbanism and skills involved in the planning process
- SC4: Understanding the problems of structural design, building-engineering related to
- building design as well as the resolution techniques which are used
- SC5 Knowing the physical problems, various technologies and building functions to provide them with interior comfort conditions and protection from climate factors
- SC6 Knowing the industries, organizations, regulations and procedures for translating design concepts into buildings and integrating plans into overall planning
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 1: Responsability . CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding. TS 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 63: Preparation, presentation and defense by a University Court of academic work performed individually associated with any of the studied disciplines

Student Performance Criterion/a addressed:

A 2-Design thinking skills (equates to CC 10)
A 6-Fundamental design skills (equates to CC 10)
B 5-Life safety
B 6-Comprehensive design (equates to SC 7)

Topical Outline:
Integrated projects workshop. 20%
Building project development 20%
Application of new technologies and contemporary experiences 20%
Plastic resources 20%
Alternative modules with a different field of activity 20%

Prerequisites: Design workshop G 7.
Textbooks/Learning Resources: Offered (semester and year):
Faculty assigned: Department of projects: Eduardo Belzunce, Eva Hurtado, Victoria Acebo, Angel Alonso, Alberto Martínez Castillo, Javier San Juan, Jose Luis Esteban Penelas, Angel Verdasco, Camilo García, Nestor Montenegro, Juanjosé Mateos, Paz Martín, Oscar Rueda, Carlos Arroyo. In addition, professors from the departments of technology and urbanism participate in the course.

101-TECHNONOGY PROJECTS WORKSHOP M1 (Master´s degree) ECTS Credits: 8. Degree Required DR.

Course Description:
Ability to apply not standard technology in design and execution processes of structures, services and envelope. Management of energy.

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 4: Understanding the problems of structural design, building-engineering related to building design as well as the resolution techniques which are used
- SC 5: Knowing the physical problems, various technologies and building functions to provide them with interior comfort conditions and protection from climate factors
- SC 6: Knowing the industries, organizations, regulations and procedures for translating design concepts into buildings and integrating plans into overall planning
- CC 1: Responsability . CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding. CC 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 17 Ability to design, calculate, building integration, urban ensembles and execute building structure execution
- DSC 18 Ability to design, calculate, design, building integration, urban ensembles and implement internal system division, carpentry, stairs and other finished work
- DSC 19: Ability to design, calculate, building integration, urban complexes and running interlocks, roof and other structural work
- DSC 20 Ability to design, calculate, building integration, urban ensembles and execute supply facilities, sewage treatment and disposal, heating and air conditioning

Student Performance Criterion/a addressed:

A 2-Design thinking skills (equates to CC 10)
B 9-Structural systems (equates to DSC 17 DSC 19)
B 8-Environmental systems (equates to SC 5)
B 11-Building service systems (equates to DSC 20)
B 12-Building materials and assemblies (equates to DSC 18)

Topical Outline:
Integrated design 20%
Intelligent systems. 20%
Learning from error 20%
Quantification: Conditioning factors, Introduction to dynamic calculus and 2nd class 20%
Three-dimensional structures 20%

Prerequisites: Technology project workshop**.**
Textbooks/Learning Resources:
Offered: not offered yet.
Faculty assigned: expert in advanced technology

102-DESIGN STUDIO M1 (Master´s degree) ECTS Credits: 12. Degree Required DR.

Course Description:
Ability to design architectural projects according to a specific program and context, cultural and social needs

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 2: Understanding the role of fine arts as a factor that may influence the quality of architectural design
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 1: Responsability . CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding. CC 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 37 Ability to design, practice and development of basic execution projects, sketches and blueprints
- DSC 38: Ability to design, practice and development urban projects
- DSC 39 Ability to design, practice and develop management construction
- DSC 40 Ability to develop functional programs of buildings and urban spaces
- DSC 41: Ability to intervene and conserve, restore and rehabilitate built heritage
- DSC 42 Entitlement to architectural criticism

Student Performance Criterion/a addressed:

A 2-Design thinking skills (equates to CC 10)
C 11-Applied research (equates to DSC 42)

Topical Outline:
Projects Branch: Integrated projects workshop, Real-life bases; Formalizing documents, Alternative modules; Research 40%
Technology Branch: Project development; Analysis Examples; Representation; Dimensioning; Biomimetic solutions 40%
Research work 20%

Prerequisites: Graduation project (Bachelor´s degree) .
Textbooks/Learning Resources:
Offered (semester and year): not offered yet
Faculty assigned: expert in advanced architectural projects

103-GRADUATION PROJECT (Master´s degree) ECTS Credits: 30. Graduation Project GP.

Course Description: Ability to Develop a project from the previous semester, for its critical transformation into an executive project in all its aspects, in accordance with the requirements of the Master's Thesis Panel at the School

Course Goals & Objectives:

- BC 3: Ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical matters
- SC 1: Knowing the history and theories of architecture, as well as arts, sciences and technologies related to this
- SC 2: Understanding the role of fine arts as a factor that may influence the quality of architectural design
- SC3 Knowing the urbanism and skills involved in the planning process
- SC4: Understanding the problems of structural design, building-engineering related to
- building design as well as the resolution techniques which are used
- SC5 Knowing the physical problems, various technologies and building functions to provide them with interior comfort conditions and protection from climate factors
- SC6 Knowing the industries, organizations, regulations and procedures for translating design concepts into buildings and integrating plans into overall planning
- SC 7**:** Understanding the relationships between people and buildings, and between people and their surrounding, as well as relating buildings and the spaces between according to needs and the human scale
- CC 1: Responsability . CC 2: Self confidence
- CC 4: Communication skills in native language (written and oral) and in English language
- CC 5: Interpersonal understanding. TS 6: Flexibility.
- CC 7: Teamwork: Ability to work in teams of architects, or in interdisciplinary teams. This capability includes interpersonal skills and team leadership ability.
- CC 8: Initiative and entrepreneurship, both in the field of architecture and business
- CC 9: Planning and time management: Ability to plan work on the need to meet deadlines
- CC 10: Innovation and creativity: Creativity, imagination and aesthetic sensibility towards design, while meeting the aesthetic and technical requirements. This includes critical thinking skills and historical culture
- DSC 63: Preparation, presentation and defense by a University Court of academic work performed individually associated with any of the studied disciplines

Student Performance Criterion/a addressed:

A 1-Communication skills (equates to CC 4)
A 6-Fundamental design skills (equates to CC 10)
B 6-Comprehensive design (equates to SC 7)
C 9-Community and social responsability

Topical Outline:
Development of form and the project 20%
Project information and representation: development and management 20%
Management of technical and construction systems 20%
Production of technical and construction systems 20%
Integration 20%
Prerequisites: 330 ECTS Bachelor´s degree plus Master´s degree.
Textbooks/Learning Resources: Offered: Fall 2013, Fall 2014 (in 2008 curriculum Graduation project 30 ECTS)

Faculty assigned: Department of projects: Eduardo Belzunce, Eva Hurtado, Victoria Acebo, Angel Alonso, Alberto Martínez Castillo, Javier San Juan, Jose Luis Esteban Penelas, Angel Verdasco, Camilo García, Nestor Montenegro, Juanjosé Mateos, Paz Martín, Oscar Rueda, Carlos Arroyo. In addition, professors from the departments of technology and urbanism participate in the course.

REQUIRED ELECTIVE COURSE MODULES (Master´s degree)

URBANISM AND ADMINISTRATION 6 ECTS Credits
INDUSTRIALIZED CONSTRUCTION 6 ECTS Credits
SPACE TECHNOLOGY AND CONCEPTION IN MUSIC TODAY 6 ECTS Credits
COMPREHENSIVE REHABILITATION 6 ECTS Credits
ADVANCED STRUCTURAL CALCULUS 5 ECTS Credits
MECHANICS OF ANCIENT STRUCTURES: MASONRY AND WOOD 4 ECTS Credits
STRUCTURAL TYPOLOGY 4 ECTS Credits
BIOCLIMATIC AND BIO-KINETIC ARCHITECTURE 6 ECTS Credits
ENERGY OPTIMIZATION OF CONVENTIONAL FACILITIES 6 ECTS Credits
FOUNDATIONS OF CONSTRUCTION MANAGEMENT 6 ECTS Credits
INTRODUCTION TO REAL ESTATE VALUATION IN REAL ESTATE AND FINANCIAL MARKETS 6 ECTS Credits
PROJECT MANAGEMENT 6 ECTS Credits
SECURITY AND PREVENTION MANAGEMENT 6 ECTS Credits
EXHIBITION AND MULTIMEDIA PROJECT MANAGEMENT 4 ECTS Credits
ART, MUSIC AND LITERATURE 6 ECTS Credits
CARTOGRAPHY OF ARCHITECTURE AND CONTEMPORARY ART 6 ECTS Credits
ARCHITECTURE AND ART IN TEXTS 6 ECTS Credits
ARCHEOLOGY OF ARCHITECTURE 4 ECTS Credits
COMMUNICATION STRATEGIES, MULTIMEDIA DESIGN AND GRAPHIC PRODUCTION IN ARCHITECTURE 4 ECTS Credits
ARCHITECTURE AND LAND 6 ECTS Credits
URBAN CALLIGRAPHY 6 ECTS Credits
MEGA-CITIES AND URBAN AGGLOMERATIONS; INTRODUCTION TO BASIC OCCUPANCY 6 ECTS Credits
URBAN REHABILITATION 6 ECTS Credits
DIGITAL URBAN PLANNING 4 ECTS Credits
SCIENTIFIC RESEARCH METHODS 6 ECTS Credits
INFORMATION PROCESSING: INFORMATION MANAGEMENT 4 ECTS Credits

2-Faculty Resumes (see 2009 Conditions, Appendix 2 for format)

We have made a selection of the most representative members of the faculty. It is possible to see all the Faculty resumes at:

http://arquitectura.universidadeuropea.es/escuela/profesores&interno=1&width=1600

Dr. MIGUEL GÓMEZ NAVARRO, Dean of the School.

Courses Taught:

Structural analysis
Concrete
Steel structures

Educational Credentials:

2000 Doctor sciences techniques. PFS of Lausana, Switzerland.
1992 Civil Engineer. ETS of Road, Canal and Port Engineer. UPM. Spain

Teaching Experience:

2007-2009 Professor of bachelor and master degree in School of Architecture. UPM. Spain.
2009-2010 Manager of Architecture program, School of Architecture. UEM. Spain.

Professional Experience:

2010 to present Dean of the School of Architecture. UEM. Spain.
2001-2009 Chief technical of MC2 (engineer company).
Projects as civil engineer:
L.A.V. Córdoba-Málaga. Spain.
Convention Centre in Córdoba. Spain.
Sacyr-Vallehermoso tower. Madrid. Spain.
Space Tower. Madrid. Spain.
1996-2001 Research in Metal Construction Institute (ICOM). Pfs. Lausana, Switzerland.
1992-1995 Project engineer in ESTEYCO.
1992-1992 Project engineer in OVE ARUO & Partners. London.

Licenses/Registration:

CICCP (Official Civil Engineering Association, Madrid), registered architect Nº 11.400

Selected Publications and Recent Research:

Concrete in high rise buildings: practical experiencies in Madrid, FIB Bulletin.
Viaduct over the Nalón river (Spain).
Swing bridge for the Formula 1 race course on Valencia harbor.
Water tower in the International Exhibition Zaragoza 2008.
Widening of the cable-stayed bridge over the Rande Strait (Spain)
Comparison of the structures for two high-rise buildings in Madrid.
A new and unusual cable-stayed footbridge at Valladolid (Spain).
Concrete cracking in composite bridges.
Concrete cracking in the deck slabs of steel-concrete composite bridges.
Launching of the Vaux Viaduct.
Experimental study of the behavior of composite beams under negative bending moments.
Experimental study of the behavior of shear stud connectors in cracked concrete slabs.

ANDRÉS ABÁSOLO, Associate Professor. International Coordinator of the School.

Courses Taught:

Architectural drawing
Architectural Geometry

Educational Credentials:
2004 Doctorade courses in Architectural Projects. UPM. Spain
1998 Bachellor of Science in Architecture. UPM. Spain

Teaching Experience:
2000-2001 Architectural drawing. Bachelor´s in Architecture. SEK. Segovia. Spain.
2004 to present Architectural drawing and geometry. Bachelor´s in Architecture. UEM. Spain.

Professional Experience:
2011 to present Manager of International programs of the School of Architecture.

2008-2011 Academic Coordinator of the School of Architecture.

2002 to present Cabas Abásolo architects. Founding member of architectural firm. Projects:
Design and construction of Loft.C/Tánger. San Sebastián de los Reyes. Madrid. Spain.
Design and construction of three houses. C/Isla de Madagascar. El Casar de Talamanca. Guadalajara. Spain.
Design and construction of house C/Río Bornoba. El Casar de Talamanca. Guadalajara. Spain.
Renovation of Book Shops Casa del Libro.C/Fuencarral and C/Maestro Victoria. Madrid.
Project of renovation of Plaza de la Fuente. Madrid. Spain.
Design and construction of 60 flats. Madrid. Spain.
Design and construction of 6 flats. Madrid. Spain.

Licenses/Registration:

COAM (Official Architects Association of Madrid), registered architect, Nº 12.468

Selected Publications and Recent Research:

Project published at the calalogue of Bienal de Venecia.
Participation in Three International congresses of Graffic Expression.
Participations in two University Innovation Sessions JIU Congresses.
Publication of article UHF *El laberinto como mecanismo del error 2007*.

FRANCISCO DOMOUSO DE ALBA . Associate Professor, Manager of Architecture program. School of Architecture.

Courses Taught (2011-12 and 2012-13 academic years):

Technological project workshop (Bachelor in Architecture)
Construction IV: Surround systems (Bachelor in Architecture)
Construction III: Structure (Bachelor in Architecture)
Bachelor´s Degree Graduation Project (Degree in Architecture)

Educational Credentials:

1992. Bachelor (with Honors) in Architecture and Urbanism. Escuela Técnica Superior de Arquitectura de Madrid (ETSAM). Universidad Politécnica (UPM).

Teaching Experience:

Building Technology Department. School of Architecture, Universidad Europea. Madrid, Spain. 2003 - present.
Professor at Master in Architectural Rehabilitation. Technology and Building Construction Department. ETS of architecture (ETSAM). Universidad Politécnica (UPM). Spain. 1998 - present
Professor at Technology and Building Construction Department. ETS of architecture (ETSAM). Universidad Politécnica (UPM). Spain. 1995-1998

Professional Experience:

Working as independent architect since 1994 (Architectural and Civil Engineering Services)
Awarded in more than 15 national and international Architectural and Civil Engineering Competitions.
Designed, directed and constructed projects of all scales and uses: Government and Private Intitutional Buildings, Building Rehabilitation and Collective Housing.
Exhibition Curator: “SIÉNTATE/SIÉNTETE CON ARNE JACOBSEN” y “POUL KJAERHOLM ESENCIAL” (COAM 2008 Prize).

Licenses/Registration:

C.O.A.M. Madrid Architects Association (COAM 10.372)
H.N.A. Madrid Representative

Selected Publications and Recent Research
ARQUITECTURA E INGENIERIA. ea! Ediciones de arquitectura. ISBN: 978-84-96656-27-7. 279 pages . Mayo 2007.
More than 30 Publications in professional and specialized magazines in Architecture.

Professional Memberships:

Member of the “Group of Experts and Forensic of the Professional Association of Architects of Madrid”.

FUENSANTA NIETO DE LA CIERVA, Lecturer.

Courses Taught (2010-11 and 2011-12 academic years):

School of Architecture. Universidad Europea de Madrid (UEM), Spain

Educational Credentials:
1981 UNIVERSIDAD POLITECNICA DE MADRID. ETSAM. Architect.
1983 COLUMBIA UNIVERSITY, NEW YORK, USA. Master's Degree in Architecture & Building Design.

Teaching Experience:

2009- 2010: Visiting Lecturer. Peter Behren School of Architecture de Dusseldorf (P.B.S.A.).Germany
1999-2012: Professor. School of Architecture. Universidad Europea de Madrid (UEM), Spain
2003 Visiting Lecturer. School of Architecture .Universidad de Navarra. Pamplona, Spain
2001 Visiting Lecturer CAPLA. School of Architecture. University of Arizona. Tucson (USA)
1999 Director Summer Courses "Madrid Games". Ministerio de Fomento. Madrid, Spain
1990-91-92-93 Deputy Director Summer Course in Architecture. Universidad Complutense de Madrid, Spain

Professional Experience:

1981-82 GWATHMEY/SIEGEL & ASSOC. ARCHITECTS NEW YORK.
1986-91 Editor (along with Enrique Sobejano) of the architectural journal ARQUITECTURA edited by the Architectural Association of Madrid (COAM)
1983-2012 Partner (along with Enrique Sobejano) of the office NIETO SOBEJANO ARQUITECTOS S.L.

Licenses/Registration: Professional Architect, Spain

Selected Publications and Recent Research:

Spanish and international publications, such as: El Croquis, Arquitectura Viva, Casabella, Bauwelt, Pasajes, Aitim, Area, Wettbewerb Aktuell, Dau, Techniques et Architecture, Architecktur Aktuell, IW Magazine, Detail, Arquine, Deutsche Bauzeitschrift, Future, AMC, Architectural Record, Betonart, Summa, Hise, A+U, Topos, monographic catalogue "Nieto Sobejano - *Arquitectura Concreta*", etc.

Professional Memberships:

-Member of the Architectural Association of Spain COAM (Colegio Oficial de Arquitectos de Madrid)
-Member of the Architectural Association of Germany BDA (Bund Deutscher Architekten)

2. Visiting Team Report (VTR) from the previous visit and Focused Evaluation Team Reports from any subsequent Focused Evaluations.

3. Catalog (or URL for retrieving online catalogs and related materials)

4. Response to the Offsite Program Questionnaire (See 2010 Procedures, Section 8)

Dr. PEDRO PABLO ARROYO ALBA (PhD Architecture, PhD Engineer, Associate Professor, Academic Director.

Courses Taught (2010-11 and 2011-12 academic years):

Fall 2010:	Architectural Design Workshop for international students
Spring 2011:	Architectural Design Workshop for international students
Fall 2011:	Architectural Design Workshop for international students
	President of the Graduation Project panel
Spring 2012:	Tri-continental Master's Degree in Advanced Architectural Design
	President of the Graduation Project panel

Educational Credentials:

2004.	PhD. ARCH. ETS of Architecture. UPM. Spain
2003.	Post-Doctorate in Science & Technology for the European Commission. STF Fellowship
	PhD. ENG. Graduate School of Engineering The University of Tokyo. Japan
1998-2000.	Visiting Researcher. Graduate School of Engineering The University of Tokyo. Japan
1997	Visiting Researcher. FAUD. National University. of Cordoba. Argentina
1996	M. ARCH (with Honors) in Architecture and Urbanism. ETS of Architecture. UPM. Spain

Teaching Experience:

From 1996, collaborations as guest lecturer and visiting faculty for a large number of architecture workshops in several universities:
Spain: UPM, UEM, University of Granada
Italy: iMage International Festival of Architecture and Video, Ivrea Institute of Interaction Design
Germany: Berlin Universitaet der Kunst, Pfingstsymposion Munich
Thailand: Bangkok Chulalongkorn University
Korea: Seoul Kookmin University
Japan: The University of Tokyo, Berlage Institute of Architecture visiting school.
China: Shanghai Tongji University, Beijing Tsinghua University, University of Hong Kong
Mexico: Technological Institute of Monterrey
USA: University of Texas Austin, San Diego New School of Architecture and Design

Professional Experience:

Founding Partner of CA-GROUP, Shanghai, China, in 2004. His architecture and urban designs have received various national and international awards, and have been exhibited and published worldwide.
Among them, the Pucang Pedestrian Bridge in Qingpu, his first public project in China, has been awarded in the X Spanish Architecture Biennale organized by the Architects Association of Spain as one of the 34 best buildings of the year designed by a Spanish architect worldwide, received the Leonardo 1rst Prize, and was selected for the JAS exhibition (Young Architects of Spain) and the WAF. The Xidayinggang Twin Bridge in Qingpu, has obtained the Steel Structure Award of Shanghai (first prize) from the Shanghai Steel Structure Association, and the Steel Structure Award of China from the Chinese Construction Metal Structure Association.

Licenses/Registration: COAM (Official Architects Association of Madrid), registered architect Nº 11975

Selected Publications and Recent Research:

- Collaborator with frequent articles and essays in prestigious professional media, as in: AV, Arquitectura Viva, a+u-China, Domus-China, AWM, area, Metalocus, Future, a+, C3, Architecture Today, Urban China, T+A, Cross.
- 2001 to 2005. Correspondent in Japan of the architectural magazine Pasajes
- Co-Editor of the following books:
    - 2010 "Fall in Charming", CA-Publishing
    - 2009 "Spanish Architecture 1997-2008" (Spanish-English edition), CA-Publishing
    - 2008. "Spanish Architecture 1997-2007" (Chinese-English edition), CA-Publishing
    - 2007. "Spain [f.]: we, the cities", Spanish Ministry of Housing (Chinese Edition)
    - 2005. El Croquis (Chinese edition): nº 01-02, nº 03, nº 04

Dr. CARMEN GONZÑALEZ GASCA. Professor.
Courses Taught (2010-11 and 2011-12 academic years):

Material building's signatures in construction Engineering.
Examining board's member of construction engineering degree's (REFURBISHMENT DISCIPLINE).
Examining board's member of construction engineering degree's (HIGH QUALITY DISCIPLINE).

Educational Credentials:
Bachelor of Science in Mining Engineering. Specialization in metallurgy and mineral processing. (UPM – Polytechnic of Madrid). GRADUATED WITH HONORS
Doctorate of "Material Engineering" (ETSIM. UPM – Polytechnic of Madrid). SUMMA CUM LAUDE.

Teaching Experience:

2010 DEC – present: UEM University (Madrid). Headmaster in technologic building engineer department.
2001 FEB - 2010 DEC: SEK University IE (Segovia). Lecturer and headmaster in architectonic construction's department.

Teaching Interests:

Building materials durability.
Ingineering design methods; Development technologies;
Chemistry description and microstructural; Materials Chemestry; Laboratory Essays.

Professional Experience:

Technical consultant for researching and development projects on recycling building materials in CENIM
Researcher staff for Torroja's Institute in Madrid

Licenses/Registration:

Selected Publications and Recent Research:

2011 - Recycling and environment Subline Promess (1st International Spanish-Polish Seminar on the Processes, Materials and Environment of Metallurgical and Ceramics Manufacturing) Vol I. Pág: 97-106. ISSN/ISBN 978-84-693-8770-2
2004 - Reduction in dust and gaseous emissions from sinter strands (CORDIS RTD-PUBLICATIONS/EUROPEAN COMMUNITIES). ISSN: 92-894-8110-2
2001 - Development of technologies for treatment of dust and sludges containing zinc nd lead to improve their recycle and reuse (CORDIS RTD-PUBLICATIONS/EUROPEAN COMMUNITIES). ISSN: 92-894-1094-9.
2000- Suitability of Torrent permeability tester to measure air permeability of cover concrete. American Concrete Institution (ACI) - Special Publication. Vol: Vol. 192. Pág: 301-318. ISSN/ISBN: 48333-9094
1999. Relation between colourimetric chloride penetration depth and charge passed in migration tests of the type of standard ASTM C1202-91. Cement and Concrete Research. vol: Vol. 29. Pág: pp 417-421 ISSN/ISBN: 0008-8846

Professional Memberships:
Membership of Minering Engineering Association.

JOSE JURADO EGEA . Associate Professor.

Courses Taught (2010-11 and 2011-12 academic years):

Structural Systems, Technical Systems I and II, Final Degree Project.

Educational Credentials:

1993 Bachelor of Architecture, ETSAM/UPM, with specialization in Urban Planning
2011 DEA (Advanced Studies Diploma), ETSAM / UPM.

Teaching Experience:

2003-2012 Professor, Department of Building Technology, UEM
2008-2011 Taught in: Master "Lightweight Façades", E.S.A. of San Sebastian, Basque Land.
2007-2010 Taught in: Master "Advanced Techniques in Architectural Projects", Proy3cta/UEM

Professional Experience:

1994 First Prize, in competition by SEPES, Ministry of Public Works: 58 Public Housing.
2007 Princess Leonor Hospital, Madrid, 80.000m2, Chief Architect, VAB Architects.
2003 Residencial Bloc, 1.300m2, Alcobendas, Madrid.
2001 Viessman, new industrial facilities, Madrid, 4.200m2. Consulting.

Licenses/Registration:

Professional Architect, Spain

Selected Publications and Recent Research:

2011 "Roofing, a projective perspective", TECTONICA nº 34.
2009 "Blocs with steel structure", TECTONICA nº 29.
2008 "Citius, altius, forties" TECTONICA nº 26. On building with concrete.
2004 "A concrete tape for a bus station", TECTONICA nº 17.
2004 "Knowledge needs space, technical plants too", EL INSTALADOR, ISSN 0210-4091, nº 412, pags. 32-34.
2003 "Precast concrete", ETSAB, UPC. Architectural Building Technologies.
2003 "Living in a Loft", El Pais Semanal, journal nº 1.412.
1999 "Sublimate iron", TECTONICA nº 9. On steel building types.
1998 "Velodrom in Berlin", TECTONICA nº 6. On D. Perraults project.
1997 "The story of us", TECTONICA nº 5. On Precast Concrete.

Dr. JUAN CARLOS GARCÍA-PERROTE ESCARTÍN. Professor.

Courses Taught (2010-11 and 2011-12 academic years): Fall 2010: Architectural Drawing (2000, 1º, UEM) Spring 2011: Introduction to Urban Studies (2008, 2º, UEM Val); Urban Planning (2008, 4º, UEM Val) Fall 2011: Intr. to Urban Study (2008, 2º; 2000, 2º, UEM); Professional Practice (2000, 5º, UEM); Landscape & Architecture (2000, op, UEM) Spring 2012: Intr. to Urban Studies (2011, 1º, UEM); Urban Planning & Design (2000, 3º, UEM).
Educational Credentials: PhD in Architecture, UEM, Sep. 2003; Doctoral Courses, UPM, 1980-1983. Bachelor of Architecture, Universidad Politécnica de Madrid, Dec. 1978.

Teaching Experience: Full Professor of Urban Studies (UEM: Graduate courses since 2011); Professor (UEM: doctoral courses since 2004; IEAL, INAP, COAM: Postgraduate Courses since 1980); Full Professor in Graphic Studies (UEM: Graduate courses since 2004); Professor (UEM: Graduate courses since 1996; UPM: Graduate courses 1979-1996); Accredited by ACAP as a "Profesor Doctor" [Tenured Professor] (2004).
Head of the Department of Architecture at the School of Architecture at Universidad Europea de Madrid (Feb-Sep 2010; Valencia, Oct-Jun 2011)); Dean of the School of Fine Arts and Architecture and member of the Academic Council of Universidad Europea de Madrid (October 2006 - January 2010), of which he was Academic Coordinator (2002-06); previously, Area Coordinator for Architecture (since 1998) and Education Coordinator of the School of Architecture (2000-02), of which he was Academic Area Manager in Graphic Expression (1996-2003), and Manager of Admissions (2000-02); A+BA joint degrees (2002-03) and Academic Fields (2001-03).

Professional Experience: Freelance professional dedicated to territorial and town-planning and related fields, such as the Green Railway Corridor (1987-89), the Southern Madrid Metropolitan Area and the Culebro Stream Urban Action Plan (1988-89), as well as Study of Planning and Trade in major Spanish cities (1996); has worked for the Department of Urban Planning of the Madrid City Hall (1986-87), formulating diverse plans and chapters for Project Madrid (1989) and the annual records, and in the General Management of Urban Planning of the Madrid Regional Government (1992-95), coordinating the shaping of the Madrid Housing Plan (1993-95), the drafting of the Foundation Document of the Regional Plan of Territorial Strategy (1995) and its compilations and publications. Urban Planning Award of the Madrid City Hall for the PVF (1989) and the PRET (1995).
Also dedicated to the construction, restoration and renovation of several houses in Madrid (1983-89), the Alcazaba of Badajoz (1984-90), the churches of Illescas (1983), Alcaraz (1983-89) and Torre de Juan Abad (1987-89); Palacio Ducal de Medinaceli (1989-2000), Casa de Arredondo (1989-92) and Convento de San José (1993-99). Member of the Toledo Cultural Heritage Committee (1983-1989) and the UNESCO Committee for the preservation of Fez (1988-90). Royal Foundation of Toledo Restoration Award for the Iglesia de Santas Justa y Rufina (1993) and for the Nobility Records in Hospital de Tavera (1995).

Selected Publications and Recent Research: Author of other papers such as "From the city to the global metropolis" (in "*Perspectivas de la ciudad*", 1998), presentations, introductions and chapters in books on Activity of the School (thirteen 1996-2010), Blog (four, 2006-10), "Passable limits 1996-2006" (2007), "Travel Journal through Egypt" (2007), "In transit II PFC 07-09" (2009), among others. Re).
Has taken part in several addresses and publications in conferences involving graphic design, such as "The limits of spatial representation" (1998), "
Professional Memberships: Member of the Madrid Official College of Architects (since 1979; member of the Representative Council since 2007, and member of CSCAE since 2011). Former member of the Toledo Cultural Heritage Committee (1983-1989). Member of ASA (Association of Sustainable Architecture) since 2009.

Dr. JOSÉ LUIS ESTEBAN PENELAS .Full Professor/Chair

Courses Taught (2010-11 and 2011-12 academic years):
2010-2011- Architectural Design III, 5th year, 1st. Semester
Architectural Design III, 5th year, 2nd. Semester
2011- 2012- Architectural Design III, 5th year, 1st. Semester
Architectural Design III, 5th year, 2nd Semester
Architectural Design Final Project, 2nd Semester
Educational Credentials:
1985 -Architect and Urban Planning, ETS Architecture (Univ. Politécnica de Madrid) (Grade A+ Honours)
2002 -Doctorate of Architecture, Universidad Europea de Madrid, Spain. (Grade A+)

Teaching Experience: 24 years
Full Professor, Dep. Architectural Design, School of Architecture, Univ. Europea de Madrid (2009-2012)
Professor, Dep. Architectural Design, School of Architecture, Univ. Europea de Madrid (1998-2009)
Associate Professor, Dept. Graphic Drawing and Dep. Architectural Design,ETSAM
Assistant Professor, Research Program, Dept. Architectural Design, ETSAM(1987-1989)
Professor, Master of Urban Design and Landscape, Universidad Politécnica de Madrid (1998-2012).
Visiting Professor at: Tongji Univ. (Shanghai), Tsing Hua Univ. (Beijing), Univ. Politécnica Barcelona, Univ. Seville, Univ. Valencia, SKKU Univ. (Seoul), Univ. Javeriana (Bogotá), Univ. Genova, Univ. ESA (Paris), Univ. Trento, AA (London), NSAD (USA)
.
Professional Experience: 26 years
Director of Projects and Urban Design of Madrid Council (1989-1998).
Head of his international office of Architecture and Urbanism, Madrid (Spain), "PENELAS ARCHITECTS", with over 100 built projects, having received more than fifty national and international awards. His projects and his work have been internationally published. His work has been exhibited in twenty five countries (1987-2012).Curator Spanish Pavilion, II International Architecture Biennale (Rotterdam, 2005).
Licenses/Registration: Registered Architect, COAM Spain

Selected Publications:
Author book: "Parque Juan Carlos I", ISBN. 84-88661-08-8. Ed. Madrid Council, Madrid, 1993.
Author book: "Metamadrid Supercluster, ISBN. 84-7207-174-X. Ed. Rueda, UEM, Madrid, 2005.
Author book: "XXI Century Architectures", ISBN.978-84-96656-26-0. Ed. Fund. Cultural COAM, Madrid, 2007.
Author book: "Super places. The Inter-media Spaces", ISBN. 978-84-7207-182-7. Ed. Rueda, Madrid, 2007.
Co-author: "Spanish Architecture 1997-2007", Ed. CA Group. ISBN 978 84 3055671 7. Shanghai, 2008
Co-author book: "7 Labyrinths". Ed. Aedes am Pfefferberg.ISBN. 978-3-937093-03-1. Berlín, 2009.Pg: 32-40.
Author book: "Building the City of the Future", ISBN.978-84-692-8470-4. Ed. Official College of Architects of Madrid and Fair Institute, Madrid, 2009.
-Co-author:"IL Parco Pubblico. Peasaggi". Federico Motta Editore. ISBN. 88-7179-254-8. Pg: 110-116. Milano, 2000.

Recent Research:
Founder and Director of Research Group AIR LAB / I_PAO (Architecture International Research Laboratory / International Projects Advanced Architecture Organization, UEM, 2008). Research guidelines: projects related to the contemporary developments of megacities in the 21st Century. Main projects: -1. Main Researcher "Master Plan SuperSaemangeum City", Korea (2008-12): economic endowment of 125.343 eur (on-going) - 2.Main Researcher "MetaMadrid Supercluster", Madrid (2006-08): economic endowment 90, 000 eur (completed)-3. Member Researcher "Space and Subjectivity", UEM (2007-10): economic end.64.130 eur (completed) - 4. Main Researcher "Architecture. Centre" (2010): econ. endowment: 10, 000 eur

Dr. ÁNGEL LUIS FERNANDEZ MUÑOZ .Full Professor/Chair

Courses Taught (2010-11 and 2011-12 academic years):
2011-2012:
10000001159tc1 - architectural design 2
20110ds7001101m1101 - tricontinental máster in advanced architectural design
20090dbq001101t1101 - master in efficient building and environmental and energetic rehabilitation.
2010-2011:
10000001159tc1 - architectural design 2
20090dbq001101t1101 - master in efficient building and environmental and energetic rehabilitation.
Educational Credentials:
PH.D. Architect 1986 by the School of Architecture of Madrid. Doctoral Thesis: The architecture of the theatres of Madrid. Historical development and typological evolution. Read in March 1986. Rating: Cum laude. Senior Architect 1979 by the School of Architecture of Madrid.
Teaching Experience:
Since 1996, Full Professor of Architectural Design. School of Art & Architecture. Universidad Europea de Madrid.
1985-1996 Tenured Professor of Architectural Design. School of Architecture of Valladolid (Spain).
1980-84 Professor of Art History at the School of Architecture of Madrid.
Frequent lecturer and professor in foreign schools of architecture: Politecnico de Milano, Roma-La Sapienza, Cottbus, Weimar, Liechtenstein, La Habana, Toronto, Berlín, Medellín, etc.)
Professional Experience:

Author of a large number of articles and books on design and preservation of urban and architectural heritage.
He has been General Director of the City Centre Office at the Madrid City Council
He has also an extended experience as architect in architectural projects and planning.
2008-(u.c.) Rehabilitation of the Lyda Cultural Center and the Gullón Theatre. Astorga. Leon. Ministry of Housing.
2005-2007. Various projects of rehabilitation and reform at the Spanish SENATE. Madrid
2007-(u.c.) ARAU Cultural Center. San Andres de Rabanedo. Leon. Ministry of Housing.
2007-2010. Rehabilitation and expansion of Usera Crafts Center. Madrid Employment Agency. Madrid City Council
2005-2010. New offices building for the Madrid Employment Agency in 10 Toledo St. Madrid City Council
2004-2007. Restoration of “La Corrala” building. Lavapies Quarter. Madrid. EMV Madrid.
2004-2005. New Head Offices bldg. for the “Insurance Compensation Consortium” in Paseo de la Castellana 32, Madrid.
Licenses/Registration: Member of the Madrid Official Order of Architects nº 5.283
Selected Publications and Recent Research:
2012.
Kevin Roche. Collection "Pritzker Architects." Unit Magazines Editions, S.L.U., Madrid, 2011.
“Espacios ausentes”. Urbanacción 07-09. La Casa Encendida. Madrid, 2010, pp. 306-309
“Soane en El Cairo: el museo Gayer-Anderson”. Cuaderno de viaje a Egipto. Universidad Europea de Madrid. Madrid, 2008, pp. 206-215
“Arquitectura Teatral (1950-2000)”. ADE teatro, nº 123, December 2008, pp. 97-105
“Nuevos territorios y dimensiones en la investigación arquitectónica: su articulación educativa” Libro de Abstracts de las “Segundas jornadas sobre investigación en arquitectura y urbanismo”. Universitat Politècnica de Catalunya. Barcelona, July 2006, pp. 92 and 93

Dr. SUSANA MORENO SORIANO. Professor

Courses Taught (2010-11 and 2011-12 academic years):
Building Construction I.
Structural Systems.
Technical Systems
Architecture and Urban Impacts. Module I Master MUEEREM
Acoustics. Module VI Master MUTAPA
Sustainability. Module V Master MUPPRSP

Educational Credentials: B.Arch. Acoustics Exp. PhD

Teaching Experience:
1998-2007 Professor at the Department of Technology and Building Construction Politechnic University of Madrid.
2009-2012: Head management and professor at MEEREM (Master in Efficiency Building and Environmental Regeneration) UEM
2002-2004.Director of Building Technology Department.2007-2009
2007-2009 Professor at the Department of Building Technology Architecture School. Universidad Europea de Madrid
2007 Professor at the Department of Building Technology Architecture School. Universidad Europea de Madrid
Professional Experience: 20 years
Licenses/Registration: _

Research
2012 Sport building Refurbishment UEM
2011 Sport building Refurbishment: Environmental, Social, and Economic. Consejo Superior de Deportes
2010-2013 ENVELCA: Green Surfaces in District and Building Refurbishment Ministerio de Ciencia e Innovación Proyectos de Investigación fundamental no orientada
2009-2011 Natural Light and Image Transmission via Optics in Buildings. UEM
2008-2009 Application on Line Building Refurbishment and Maintenance VIAS
2007-2009 ADASY Active Daylight System. Lledó S.A.

Publications
Monitoring two Buildings in Madrid". R+S=F. International Congress. Sustainability and Refurbishment. Future is Possible Barcelona 2012.
Teaching in Sustainability and Refurbishment Conclusions Expert Panel R+S=F. International Congress. Sustainability and Refurbishment. Future is Possible Barcelona 2012l
Actas 3º Sound Landscape International Meeting. Cervantes Institute. 2011
Prometeo to Akiyoshidai. Acoustics International Congress Sevilla. 2009
Arquitectura y Música en el siglo XX. Fundación Caja de Arquitectos. Barcelona.2008. ISBN 978-84-935929-9-8
"Musica e architettura sperimentale: Da le poème électronique a la tragedia dell ascolto". Cuad Ricerca MILÁN 2006

Professional Memberships:
Membership ASA Asociación de Arquitectura y Sostenibilidad
Head Management Cátedra Lledó
Member of Architects Professional Association

Dr. FERNANDO ESPUELAS. Professor.

Courses Taught (2010-11 and 2011-12 academic years):

PROYECTS II

Educational Credentials:

Associate professor

Teaching Experience:

PROJECT OF ARCHITECTURE

Professional Experience:

Architect (1978)
Ph. D. in Architecture (1980)
Projects*:*
Library (Colmenar Viejo. Madrid) */ Auditorium* (Colmenar Viejo. Madrid) */ Library* (El Escorial. Madrid) */ Sports and culture Center* (Moraleja. Madrid) */ Town Hall* (Los Santos Madrid) */ Town Hall* (Alalpardo. Madrid) */ Lake and garden* (Coslada. Madrid)

Licenses/Registration: COAM

Selected Publications and Recent Research:

BOOKS:
El claro en el bosque. Reflexiones sobre el vacío en arquitectura (1999)
Madre Materia (2009)

BOOK CHAPTER
Planos de [Inter]sección (2011)

RESEARCH GROUP MEMBER:

Espacio y subjetividad. Plan Nacional de I+D+i

Professional Memberships:

FRANCISCO JAVIER GONZÁLEZ GONZÁLEZ. Associate Professor

Courses Taught (2010-11 and 2011-12 academic years):
Urban Areas and Sustainable Urban Design. Urbanistics I; Final Degree Project in Architecture; Final Degree Project in Design; Regional Project and Sustainability; Architect and Urban Impacts. Module I Master MUEEREM (Master in Efficiency Building and Environmental Regeneration), Head of Building Module VI Master MUEEREM

Educational Credentials:
Master of Advanced Studies (Diploma de Estudios Avanzados, DEA), Polytechnic University of Madrid
B, Sc, Architect, School of Architecture Polytechnic University of Madrid

Teaching Experience:
-Professor in the Urbanism and History Department, School of Architecture, UEM, 1998-2012
-Urban Area Coordinator and Professor at MEEREM UEM 2009-2012:
-Head Management Postgraduate Course in Building and Sustainability UEM. 2005-2006.
-Academic Area Manager of Architecture Degree. 2002-2004
-Professor of Graphic Expression at ECAM. (Escuela de Cine y Audiovisuales de Madrid). Production Design branch.1998-2008.

Professional Experience:
-Economic Activity Implementation Studies in Madrid City Master Plan 2012;
-Urban Regeneration and Housing Act, for Alcorcón City; 2012Masterplan Albacete City Coordinator, 2008-2011;
-Sustainable Urban Mobility Plan for Albacete City2009-2010
-Metropolitan Master Plan Albacete city coordinator; 2008-2011
-Sociospatial issues in multicultural interaction in Lavapies and Valdeacederas neighborhoods, Madrid for Madrid City Council.2010

Licenses/Registration: Member of the Professional Association of Architects

Selected Publications and Recent Research:

VV, AA.(2011) "Habitar sostenible: integración medioambiental en 15 casas de arquitectura popular española". Centro de Publicaciones. Secretaría General técnica, Ministerio de Fomento. Madrid, Diciembre 2011.

VV.AA. (2011). "Una visión-país para el sector de la edificación en España: Hoja de ruta para un nuevo sector de la vivienda" Editor: GTR. (González González y otros). CCEIM-Fundación Complutense. Madrid. European Climate Foundation. December 2011

VV.AA. (2011). "VVTeaching in Sustainability and Refurbishment Conclusions Expert Panel R+S=F. International Congress. Sustainability and Refurbishment.Future is Posible Barcelona 2011l

González González F J, De Santiago, E; Pérez Muinelo, AM, (2007). "Habitar entre la tradición y la vanguardia. Arquitectura Sostenible para el siglo xxi." Revista Digital Universitaria. UNAM (Universidad Nacional Autónoma de México). Volumen 8 nº 7. México DF, Julio 2007.
http://www.revista.unam.mx/vol.8/num7/art53/int53.htm

JOSE MARÍA GARCÍA DE PABLOS. Associate Professor.

Courses Taught (2011-12 and 2012-13 academic years):

"Urban Planning" (Bachelor in Architecture 2012-13)
"City Project Workshop" (MasDegree in Fundamentals of Architecture 2011-12-13)
"Graduation Project" (2011-12-13)

Educational Credentials:

1969 Bachelor in Architecture. Polytechnic University of Madrid, Madrid, Spain
1972 Town Planner Expert. Studies from the Local Administration Institut Madrid,Spain
2012 Postgraduate studies. Doctoral Thesis in process

Teaching Experience:

Department of Urbanism and Architectural History, European University of Madrid(UEM), Spain. 1999-present
Department of Urbanism. School of Architecture. Valladolid. Spain. 1982-86

Professional Experience:

Member Director Team "Master Plan of Madrid". 1981-85. National Award in Urban Planning. Spain. 1983
Director of the Urban Planning office in Fuenlabrada (Madrid). 1999-2004. National Award in Urban Planning. Spain . 2005

Licenses/Registration:

C.O.A.M . Madrid Architects Association

Selected Publications and Recent Research
"Action Areas" (contribution in "Madrid City Centre: Cityscape in the Veiled Metropolis"). School of Architecture UEM. 2012
Comissioner of Conferences and Publications "Urban Perspectives", numbers 1 a 6. 2005-2013. UEM/COAM.
"To reinvent the Plan how Urban Proyect : the small actions". International Course. University Menéndez y Pelayo. Santander. 2012.
"Condition and Future of El Cabanyal". Lecture: Valencia and the Sea: Valencia.2011

Professional Memberships:

Member of the "Research Group Medit-Urban". 2011-13. UEM
Member of the " Urban Debate Club". Fine Arts Social Circle. Madrid. Spain.
Professor Member of the Group "Studies Plan". School of Architecture UEM

BEATRIZ MATOS CASTAÑO. Associate Professor

Couses Taught 2012-2013
Fall 2012: Architectural Design Workshop
Member of the Graduation Project panel
Spring 2013: Architectural Design Workshop
Member of the Graduation Project panel

Educational Credentials
1985. M. ARCH (with honors) in Architecture and Urbanism. ETS of Architecture, UPM, Spain

Teaching Experience
1998-2013 Professor School of Architecture UEM
2004-2005 Visiting professor ETS of Architecture UNAV (Navarra)
1989-2003 Professor ETS of Architecture, UPM (Madrid)
1987-1989 Associate professor CSDMM (fashion design), UPM
From 1987, collaborations as lecturer and visiting faculty for architectural workshops in several universities:
- España: ETSAM UPM, , CEU (Madrid), Alcalá de Henares University(Madrid), UPV (País Vasco), ETSAV UPV (Valencia), ETSAC UDA (A Coruña), ETSAS (Sevilla), ETSAB UPC (Barcelona), SEK (Segovia), Alfonso X (Madrid)
- Liechtenstein: Institut for Architectur und Raumplanung.
- China: Shanghai Tongii University

Licenses/Registration:COAM (Official Architects Association of Madrid), registered architect Nº 7365
Professional Experience:
Founding partner of MATOS-CASTILLO architects 1985.

Some Awards to constructed work
ANDREA PALLADIO awards 1993. III edition, Vicenza, Italia. First Prize
II YOUNG SPANISH ARCHITECTS awards. 1992, Madrid. First Prize.
COAM AWARDS, 2000 (Heritage conservation and restoration) First Price
COMMUNITY OF MADRID Architecture Awards 2000, (Innovation) First Price
MADRID CITY TOWN HALLawards, 2001 (architecture and urban design). First Prize
COAB, (Balearic Islands) 1999-2001 (housing) First Prize
MADRID CITY TOWN HALL awards, 2003 (architecture and urban design). First Prize
COMMUNITY OF MADRID Architecture Awards 2003, (architecture) First Prize
FAD awards 2004 (Housing) Finalist
ASPRIMA, Madrid, 2004 (housing) First Prize
COMMUNITY OF MADRID Architecture Awards 2005, (social housing) First Prize
FORO CIVITAS NOVA, 2007 awards (Castilla La Mancha) Finalist
XII BEAU 2013 (Spanish architecture Biennale), Selected finalist
Some Awards in architectural competitions:
2008 FIRST PRIZE, Social Housing, Puerto de Santa María, Cádiz,
2007 FIRST PRIZE, Museo Goya Fuendetodos, Fuendetodos,
2005 FINALIST, Federico García Lorca Center, Granada, Spain
2004 FIRST PRIZE, Social Housing, Pozuelo de Alarcón, Madrid, Spain
2004 FIRST PRIZE, Social Housing, Vitoria, Spain
2001 FIRST PRIZE, Market and Music School, Son Servera, Palma de Mallorca, Spain
1999 FIRST PRIZE Social Housing, Madrid,
1997 FIRST PRIZE, Casino de la Reina Park, Madrid, Spain
1996 RUNNER UP (first price inconclusive) Prado Museum Extension, Madrid, Spain
1992 FIRST PRIZE EUROPAN II, Social Housing Basauri, Spain
1991 FIRST PRIZE, Euskadi Technique Museum, Baracaldo, Spain

Selected Publications: El Croquis**,** L´Architecture d´Aujourd´hui, El Croquis, Arquitectura Viva, AV, Architeti

FELIPE ASENJO. Associate Professor.

Courses Taught (2010-11 and 2011-12 academic years):

2011-12	9993001209 Space and information drawing
	9993001204 Models and prototypes
2010-11	9993001105 Two-dimensional representation Workshop
	9993001110 Three-dimensional representation Workshop
	9993001104 Geometric and Architectural representation systems
	1001002824 Construction of models and prototypes

Educational Credentials:

2008. Architect, Universidad Europea de Madrid
1996. Arquitecto técnico (Building engineer), Universidad Politécnica de Madrid

Teaching Experience:

Architectural technology	Construction / Materials
Architectural representation	Graphic design / Multimedia communication

Professional Experience:

He worked in the development of CLEMENTE REDONDO and RUIZ CHÉRCOLES team's projects'. Later, as a free professional, he worked in Project Management and the execution of Building Works. He collaborated with HERNANZ-DIAZ (housing); OCHOA RODRIGUEZ MIÑÓN (industrial buildings), and ALAE (offices and nursing homes).
In ESNE-Camilo Jose Cela University, he taught courses in different areas and worked as academic coordinator. Currently, Asenjo is professor at the Department of Projects and Representation of Architecture and Academic Coordinator of the School of Architecture.

Licenses/Registration:

Professional architect
Pofessional building engineer

Selected Publications and Recent Research:

"La Revista Nacional de Arquitectura a través de sus portadas. Revisión de la Arquitectura Española de una década. 1948-58", in *VIII Congreso Internacional Historia de la Arquitecura Moderna Española*, Universidad de Navarra, Pamplona, 2012.

"Los hornos de cal de la Lobera, en Vegas de Matute (Segovia): Historia, análisis gráfico y arqueológico, y propuestas de actuación", in *I Congreso de Investigación sobre Paisaje Industrial,* Universidad de Sevilla, Sevilla, 2011 (in collaboration with José Miguel Muñoz Jiménez (historian) and Pablo Schnell Quiertant (archaeologist).

Professional Memberships:

Member of Colegio de Arquitectos of Madrid (Association of Architects).

Member of Colegio de Aparejadores, Arquitectos técnicos e Ingenieros de la Edificación of Madrid (Association of Building Engineers).

NIEVES MESTRE. Associate Professor.

Courses Taught (2010-11 and 2011-12 academic years):

Course 2010-11History of architecture

Course 2011-129993001106 History of architecture

Educational credentials

2010 PhD Candidate at Universidad Europea ed Madrid. (ES). New syntax on hybrid buildings
2007 DEA Diploma of Advanced Studies at ETSAM. Universidad Politécnica (ES).
2001 Architect. ETSAM. Universidad Politécnica (ES).

Teaching Experience

2013 Visiting Lecturer at Architecture Association (UK), Master in Environmental Design
2012 Visiting Professor at Nottingham (UK), School of the Built Environment
2012 Visiting lecturer at TU Delft (NL)
2007-2012. Professor at IE University (ES).
2006-2012. Professor at Universidad Europea de Madrid (ES). Design Studio
2005-2006. Professor at Syracuse University (US). Design Studio and Survey of Italian Architecture
2002-2005. Teaching Assistant at ETSAM. Design Studio
2005-2012 Regular guest at juries and lectures worldwide. (TU Delft, FADU Buenos Aires, Cornell University, University of California, Syracuse University, Bartlett School of Architecture, Nottingham University)

Professional Experience

2006-2012. Independent practice, Madrid. COMBO LAB
2003-2004. Team leader at Ciudad de la Cultura, by Peter Eisenman. Andrés Perea Office.
2002-2005 Consultant for the Municipality at the City of Madrid Urban Planning Department
2005 Project manager at Alcalá de Henares Hotel, Madrid (IDOM/ACXT)
2002 Architect in MVRDV office, Rotterdam (NL)
2011 1st prize in Innovative Education, Jornadas Innovación Universitaria, UEM
2009 Runner up at Housing competition EMV Ensanche de Vallecas. (with E. Roig)
2006 1st prize International Competition Parco della Memoria San Giuliano De Puglia. Campobasso . Italy (with M. Leira)
2006 1st prize Competition at Berrocales, Madrid. 1300 dwellings for the IVIMA. 2005 1st prize international Competition EUROPAN 8. Urbanizing with the infrastructures: Reggio Calabria,

Selected Publications and Recent Research:

2012 Mestre, N. y Perea, A. Asaltos sobre la Teoría y la Crítica de la Arquitectura. Ed. Futura (In progress)
2012 Mestre, N. Energy, Adjacency and Environmental Opportunism. Proceedings at 11th CONAMA. ISBN 978-84-695-6377-9
2011 Mestre, N. El Espacio como Ruta. Progresos de un habitar coreográfico. Arquitectos nº 190. Movilidad. Revista del Consejo Superior de Arquitectos de España. ISSN 0214-1124
2011 Mestre, N. Cloud and Mountain. Ideas for a building in Symbiosis". Proceedings at 27º PLEA, Architecture and sustainable development. ISBN 978-2-87463-279-2
2011 Mestre, N and Fructuoso, L. La montaña y la nube. Ideas para un edificio en simbiosis www.detail-online.com/arquitectura
2011 Mestre, N. y Perea, A. Beyond Education: the student as a center of pedagogy. 1º Prize on Teaching Innovation. Jornadas Innovación Universitaria.UEM University.

2013 EDUCATE II. (Environmental Design in University Curricula and Architectural Training). In progress
2009-2012 EDUCATE (Environmental Design in University Curricula and Architectural Training). Intelligent Energy Europe1.658.185 €

Professional memberships

2002-2012 Registered architect on the Professional Body of architects
2009-2012 Member of the Spanish Chamber of Architects

ARANZAZU DE LA PEÑA GONZALEZ. Associate Professor

Courses Taught (2010-2011, 2011-2012 and 2012-2013 academic years):

Design of Structures (Architecture).
Foundations (Bachelor's degree in Building Engineering)
Soil and Foundations (Bachelor's degree in Architecture)
Structural Physics (Bachelor's degree in Building Engineering)
Structures (Bachelor's degree in Building Engineering)

Educational Credentials:

1994. Architect. ETS of Architecture. Universidad Politécnica de Madrid (UPM). Spain
1994-1995. Reinforce Concrete Expert Course. Universidad Politécnica de Madrid (UPM). Spain
1998-1999. Master in Building and Business Management (M.G.E). Centro Superior de Arquitectura (CSA)
2004-2005. Master in Structural Specialization by Zigurat-Cype Engineers.

Teaching Experience:

1991-1994. Technical Drawing Teacher. Mª Inmaculada High School. Madrid, Spain.
2007-present. Building Technology Department – Structural Area . Faculty of Architecture, Universidad Europea, Madrid. Spain

Professional Experience:

1993-1995. Spanish Senate Architect Team. Historical Buildings: Study to replace the second floor, coordinating As-built architectural plans for Spanish Senate. Museo del Prado. Madrid: Restricted Competition for integral roof rehabilitation.
1995-1997. Architect in charge of implementation of Base Transmission System (BTS). Airtel Móvil S.A. (Vodafone) - DYCTEL, S.A. (GRUPO DRAGADOS) - Zona 5 (Andalucía)
1998-2000. Architect for Civil Engineering and Quality Departments in ERICSSON ESPAÑA,S.A. Implemented Base Transmission System (BTS), infrastructure for mobile telephones .
2000-2007. Structural Designer: Project Design and Execution Department, A.G.I, S.L. (Arquitectura, Gestión e industrialización). Preparation of design and visions, schematic design, working drawings and construction supervision. During this period, work on over 50 public and private buildings.
2008-Present. Freelance Architect and Structural Designer (Architectural Services). Housing: New construction and rehabilitation, and Public and private buildings: Structural Design and Execution, Centro de Inserción Social (CIS123) en Navalcarnero (Madrid). Client: SIEP (Sociedad Estatal Infraestructuras y Equipamientos Penitenciarios).

Selected Publications and Recent Research:

Concurso 111 VPO "Las Rosas". Pág. 65-67. 1996. Ed. Empresa Municipal de la Vivienda de Madrid (EMV).
Arquitectos nº 139. Pág. 66. 1996. Accésit concurso Teatro Ramos Carrión. Ed. CSAE.
Concurso de ideas para el auditorio de León. Pág. 37. 1995. Ed. Ayto. de León y Colegio Oficial de Arquitectos de León.

Licenses/Registration: COAM registered architect Nº 11108

SALLY GUTIERREZ. Lecturer

Courses Taught (2010-11 and 2011-12 academic years):
Fall 2010: *Introduction to Contemporary Art* and *Art of the 20th and 21st Centuries*
Fall 2011: *Introduction to Contemporary Art* and *Art of the 20th and 21st Centuries*

Educational Credentials:
2011 Film workshop with Pedro Costa, UNIA, Huelva.
2011-07 Master classes by: Péter Forgács, Andres Veiel, Frederik Wiseman, Valentina Leduc, Nicolas Philibert, & Alain Berliner.
2009 MODIFI, *Models, Differences & Fictions in the Production of Independent Contemporary Culture*, Goethe Institut, Madrid
2007 Documentary workshop with Patricio Guzmán, Escuela de Cine, Madrid.
2000 Independent Study Program, Whitney Museum for American Art, Nueva York.
Fulbright grant, M.A in Media Studies New School University, New York.
1998-00 Masters in Media Studies, New School University, New York.
1994-95 Postgraduate course in Graphic Design and Animation, CIM DATA, Berlín
1984-89 MFA in Visual Arts, Facultad de Bellas Artes, Complutense University, Madrid.

Teaching Experience:
2004-2007 Teaches Art and Video workshops -German High School of Madrid / Padre Poveda school, Madrid
1999-00 Adjunct professor at Eugene Lang College, New School University, Department of Cultural Studies.
1999 Adjunct professor at Media Studies Dpt, New l University. New York.
1998-99 Research Assistant in the Media Studies Department, New School University,

Professional Experience:
Sally Gutierrez is a visual artist and documentary director whose work has been shown at international galleries, museums, TV channels and film festivals nationally and internationally. She has given numerous talks and workshops and has been a jury member for many grants and festivals. Her feature length documentary, *Tapologo,* co-directed with her sister Gabriela, received eight international awards. Her work has been shown in venues as the Reina Sofía Museum & Casa Encendida, Madrid, MACBA Museum & Caixa Forum, Barcelona, Jeu de Paume, Paris, Akademie der Künste, Berlin, Parker's Box and Whitebox Gallery, New York, Rencontres, Paris, Berlín, Madrid, amongst other institutions.

Selected Publications and Recent Research:
-Participant of the DECOLONIALIZING KNOWLEDGE AND AESTHETIC Research Program: (Matadero Madrid and Goldsmiths College)
-Participant of the PENINSULA Reina Sofía Museum Research Group.
- Co-author of an article in the magazine **MOVE... MENT (ed.)** Federica Bueti (2013) with Jose Manuel Bueso
- Publishes an article in the book: ***The German Reunification seen through Film,*** Alcalá de Henares University.
- Publishes a chapter in: ***Conversation,*** *with* Andrea Geyer, Sharon Hayes and Ashley Hunt, catalogue Kunstmuseum St.Gallen.
-Publishes chapter in **Piscina Municipal,** Art & Architecture book, School of Architecture, Universidad Complutense,

JULIAN DE LA FUENTE. Associate Professor.

Courses Taught (2011-12 and 2012-13 academic years):

Communication Skills (Degree in Fundamentals of Architecture)
Narrative for Architects (Degree in Architecture)

Educational Credentials:

2005 Bachelor in History. Complutense University of Madrid, Madrid, Spain
2008 Bachelor in Communication Studies. Complutense University of Madrid.
2013 Master in "Communication and learning in digital society". Alcalá University. Madrid, Spain.

Teaching Experience:

Department of Urbanism and History, Faculty of Architecture, European University of Madrid, Spain – 2011present

Professional Experience:

Working as independent producer since 2002.
Journalist and tv host in local channel (2008-2010)
Conducted several outreach projects for film heritage

Selected Publications and Recent Research

Castaño Perea, E. y De la Fuente Prieto, J. (2013). Lenguaje del arquitecto: diagnóstico y propuestas académicas. REDU - Revista de Docencia Universitaria, volumen 11(2). Publicado en http://redaberta.usc.es/redu ISSN 1887-4592
Blanco A., Moreno A., Rodríguez S., De la Fuente J., Asensio E. e Smalec I. (2012) "Transversalidad e integración de las habilidades comunicativas en la Universidad Europea de Madrid" IX Jornadas Internacionales de Innovación Universitaria. Universidad Europea de Madrid, 2012. ISBN: 978-84-95433-56-5
De la Fuente, J. Garín, J. A. Blanco, A. Asensio, E. Smalec, I. Castaño, E. (2011) "Manual de Comunicación para estudiantes universitarios: un recurso para enseñar habilidades comunicativas" VIII Jornadas Internacionales de Innovación Universitaria. Universidad Europea de Madrid, 2011. ISBN: 978-84-95433-46-6
Garín, J.A., de la Fuente, J., Castaño, E., Blanco, A., Asensio, E., Smalec, I. (2011) "Coordinacion del profesorado para el desarrollo y evaluación de la competencia comunicación oral en 1º de Grado de Arquitectura" VIII Jornadas Internacionales de Innovación Universitaria. Universidad Europea de Madrid, 2011. ISBN: 978-84-95433-46-

ESTHER REDONDO. Associate Professor

Courses Taught (2011-12 and 2012-13 academic years):

2011-2012:
Structural Analysis (Bachelor in Architecture)
Dimensioning of Structures I (Degree in Architecture)

2012-2013:
Structural Analysis (Bachelor in Architecture)
Dimensioning of Structures I (Degree in Architecture)
Structural Analysis (Degree in Fundamentals of Architecture)

Educational Credentials:

1998 Bachelor in Architecture. Polytechnic University of Madrid, Madrid, Spain
2003 DEA. Polytechnic University of Madrid, Madrid, Spain
2010-present Working in the PH. Thesis. Department of Builbing Structures. Polytechnic University of Madrid, Madrid, Spain

Teaching Experience:

Department of Building Technology, Faculty of Architecture, European University of Madrid, Spain – 2001: present

Professional Experience:

Working as independent architect since 1999:
Founding partner of the GV408-ARCHITECTS, devoted mainly to technical advice for other architects, in regard to the design, structure design and calculation. Development projects of many types of structures (apartment buildings, educational buildings, health, commercial, industrial, etc.)

Selected Publications and Recent Research

Redondo, E. 2011 «La boveda tabicada en los tratados españoles de los siglos XVI a XVIII» in *Actas del 7º Congreso Nacional de Historia de la Construcción*, Santiago de Compostela, October, 2011

Redondo, E. 2012 «Test on tile vaults in france in the 19th century» in *Nuts and Bolts of Construction History, Proceedings of the 4th International Congress on Construction History,* Paris, July 2012

EDUARDO ESPINOSA. Associate Professor

Courses Taught (2011-12 and 2012-13 academic years):

2012-13 Urban areas and sustainable design
2012-13 Urban planning workshop
2011-12 Urban areas and sustainable design

Educational Credentials:
2012 - present Writing PhD dissertation about relationship between urban configuration and social use of public space in housing block areas.
2008 Master of Research. Department of urban and land planning. Polytechnic University of Madrid, Spain
2002 Bachelor in Architecture. Polytechnic University of Madrid, Madrid, Spain

Teaching Experience:

2007-10 Academic coordinator. Department of Urbanism and History. School of Architecture, European University of Madrid, Spain
2004 – present. Professor. Department of Urbanism and History. School of Architecture, European University of Madrid, Spain – .

Professional Experience:

Charter member **COTACERO urban and land studies.** Some selected works:

Public space renewal: Pedestrian access improvement for Descalzas square (Madrid); Director plan for boulevard recovery (Madrid); Pedestrian priority studies for La Palma street (Madrid); Public space reconfiguration of Puerta del Sol, and Fuencarral street (Madrid)

Urban and historic preservation planning: Comprehensive planning coordination for several villages in Madrid and Canarias; Historic preservation planning in Albacete surroundings.

Previous extensive experience in dwelling building projects and public facilities projects

Licenses/Registration:

2002 – present. **C.O.A.M** . Madrid Architects Association.

Selected Publications

2010 **"Ecological costs"** on *Library Cities for a more sustainable future. Web journal.*
2008 **"Ecological network fragmentation at the region of Madrid"** in Schilleci, F. *Visioni metropolitane. Uno Studio comparato tra lÁrea Metropolitana di Palermo e la Comunidad de Madrid*
Recent Research

2012-present **Integral management for interrupted urban development recycling.** Researcher. UEM
2012 **Urban regeneration in university teaching.** Seminar. Organization member. UEM – TU Delft.
2010-12**. Director plan for boulevard recovery in Madrid.** Coordinator. Madrid city council.
2006-07. **Public space reconfiguration in Regiones Devastadas historical center**. Villanueva del Pardillo city council

Professional Memberships: Member of the "Mediturban" research group. UEM.

NÉSTOR MONTENEGRO. Associate Professor

Courses Taught (2010-11 and 2011-12 academic years):

Educational Credentials:
Associate Professor

Teaching Experience:
2001-2003 Associate Professor on Architectural Design, UIC Barcelona.

2006-2007 Associate Professor on Architectural Design, UCJC Madrid.

2007- Associate Professor on Architectural Design, UEM Madrid.

2010- Associate Professor on Architectural Design, ETSA Madrid.

2011- Program Director at Tricontinental Master's Degree in Advanced Architectural Design, UEM Madrid

Served as visiting professor at several universities in Alghero, Bogotá, Buenos Aires, Darmstadt, Evora, La Paz, Ljubljana, Lima, Lisboa, Montevideo, Sao Paulo, Puebla, Venecia, Weimar y Zurich, as well as in A Coruña, Barcelona, Madrid, Sevilla, Valladolid, Valencia y Zaragoza.

Professional Experience:
Founded dosmasunoarquitectos in 2003, practice office on architecture, urbanism and design.

Since then he has been awarded in 31 national and international competitions, among which are the following highlighted ones: Social Service Center in Móstoles, Madrid, Main Library and Museum at Universidad de Alcalá de Henares, Madrid, 102 dwellings in Carabanchel Madrid and the recent first price for the Master Plan and Land Management of a new are for administrative, housing and hotel uses in Ponferrada, León.

His work has been exhibited at the XI Venice Architecture Biennale, JAE (Young Architects of Spain), in the III and IV Ibero-American Biennale of Architecture, in Moscow 2008 and Sao Paulo 2003 Biennials of Architecture, as well as in several collective exhibitions around the world, including USA, China, Korea, Brasil, Colombia, Argentina, Uruguay, and several European countries.

Licenses/Registration:
Ph.D. Student in Architecture, Universidad Politécnica de Madrid, Escuela Técnica Superior de Arquitectura.

B.Arch. Universidad Politécnica de Madrid, Escuela Técnica Superior de Arquitectura.

Selected Publications and Recent Research:
His work and articles have been featured in several architectural publications, national and international, as in El Croquis, A+U, Architectural Digest, Domus, Mark Magazine, Arquitectura Viva, 2G, Detail, a+t.

Recent Research:

MONTENEGRO, Néstor. "Taxonomía y lugarización del lugar", in Words. Manual de Proyectos. Madrid: Ed. Escuela Técnica Superior de Arquitectura. Colección Textos Académicos - ETSAM, 2011, Pgs. 30-33.

MONTENEGRO, Néstor. "Lugar", in Fisuras nº16. Postproducciones. Madrid: Ed. Fisuras de la Cultura Contemporánea, 2011, Pgs. 120-125.

Professional Memberships:
Colegio Oficial de Arquitectos de Madrid, registered architect nº 14794.

JORGE CONDE. Associate Professor

Courses Taught (2011-12 and 2012-13 academic years):

Structural Design (Degree in Architecture)
Structural Mechanics (Degree in Architecture)
Structural Analysis (Degree in Architecture)

Educational Credentials:

1994 Bachelor in Architecture. Polytechnic University of Madrid, Madrid, Spain
2004 Master in Finite Element Theory and Practice. UNED, Spain

Teaching Experience:

Department of Building Technology, Faculty of Architecture, European University of Madrid, Spain – 2012: present
Department of Structural Mechanics, Polytechnic University, Madrid, Spain – 2006 - present.
Architecture Department, University Alfonso X el Sabio, Madrid, Spain – 1998 – 2001.

Professional Experience:

Technical Director of IDEEE (structural consulting company), Madrid – 1996 – present. During this period, work on over 100 building, as structural designer.

Licenses/Registration:

C.O.A.M. Madrid Architects Association

Selected Publications and Recent Research

“Steel Structures, solved examples”, Vols. 1-4, Instituto Juan de Herrera, Madrid.
‘Capacidad de redistribución en emparrillados bajo régimen no lineal’, MA thesis, e-published on UPM.
‘Ductilidad y redistribución en losas reticulares de hormigón armado’, e-published on UPM.

Professional Memberships:

Member of the Institute of Architects (COAM), Spain.
Member of IABSE (International Association for Bridges and Structural Engineering).
Member of ACHE (Asociación Científico Técnica del Hormigón Estructural).
Member of ACIES (Asociación de Consultores Independientes de Estructuras de Edificación).

SILVIA HERRERO. Associate Professor.

Courses Taught (2010-11 and 2011-12 academic years):
-Urban project (2004-5)
-City planners and cities (2005-6)
-Urban planning at municipal scale (2005-2010)
-Introduction to Urbanism (2009-11)
-Workshop of urban projects (2010-12)

Educational Credentials:
-Doctorate (in progress) in Urbanism. Faculty of Architecture - Polytechnic University of Madrid.
-Erasmus University Scholarship in University of Kassel (Germany) 1998-99
- Research fellowship in IETCC (Public National Institution of Building Research). 2003-4
- Research fellowship in SEPES (Public National Institution of Urbanistic Promotion). 2001
-2001 University Graduate in Architecture - Polytechnic University of Madrid.

Teaching Experience:
-Department of Urban Planning and History, Faculty of Architecture, UEM. 2004-2012.
-Coordination of Postgraduate Course in Sustainability Building and Urbanism. UEM 2005.

Professional Experience:
-Participated as Consultant Architect for several private and public institutions as Urban Planner and Architect of housing and commercial buildings.
-Director of an Architecture and Urban office, related to public and private projects: housing, exhibition spaces, commercial buildings and Urban Planning (from municipal to Territorial scale, and in cities of different sizes).
-Several competitions in architecture and Urbanism from 1998 to 2010.

Selected Publications and Recent Research:
-Urbanistic Research in support of the Exhibition of Hans Haacke: Castles in the sky, about urban developments in SouthEast Madrid.
-Article in the Reina Sofía Museum Catalogue for the exhihbition: Hans Haacke. Castles in the sky (english). EAN: 9788480264532. February 2012.
-Participation in the European Research INTATME (Alternative mobility about new public transport lines in East Madrid). 2001

Professional Memberships:
-Member of Professional Architects Association in Madrid, Spain

JESUS HIERRO SUREDA. Associate Professor

Courses Taught (2010-11 and 2011-12 academic years):

2010-12 Sizing Structures (4th grade) Architecture
2011-12 Technical systems II (4th grade) Architecture
2010-12 Final Degree Project Workshops in Architecture
2010-11 Structural Design (4th grade) Architecture

Educational Credentials:

2009 DEA (Advanced Studies Title) Researcher adequacy - Polytechnic University in Madrid
1991 Bachelor of Architecture – E.T.S. of Architecture in Madrid

Teaching Experience: (16 years)

Building Technology Department – Structural Area
European University in Madrid – Architecture
Visiting professor of the "COAM Cultural Foundation" (Madrid Association of Architects)
Visiting professor of the "Master's degree for the Building Construction Quality. Building Control y Direction (MC2). ETS of Architecture in Madrid
II Structural Concrete Teaching Conferences at ACHE. Committee member 2007
Building Rehabilitation – Monographic technical conference

Professional Experience:

Founding partner of *"JHS Proyecto de Estructuras y Arquitectura S.L.P."*
Participated as Consultant Architect for several private and public institutions, design submissions reviewer, selection of international consultants, value engineering workshops, preparation of design and visions, schematic design, working drawings and construction supervision.

Licenses/Registration:

Madrid Association of Architects Member - COAM
Professional Society *"JHS Proyecto de Estructuras y Arquitectura S.L.P."*

Selected Publications and Recent Research:

ACHE V Congress: "Andrés Torrejon Sports hall, Mostoles, Madrid"
ACHE IV Congress: "Anti-seismic design – Pulianas Shopping Center, Granada"
Steel Structural Congress CEA 2004: "National historical heritage. Structural reinforcement with composite steel and concrete structures"
ACIEStructuras Magazine No. 01: "Desafío Español 2007, America's Cup, Valencia"
ACIEStructuras Magazine No. 08: "Pulianas Shopping Center, Granada"
Architectural Details DDA Magazine: "Actions against the structural vibrations"

Professional Memberships:

Madrid Association of Architects Member - COAM
Founding Partner of the "Structural Independent Consultants Association ACIES"
2005-2007 ACIES Association Vice-president
Professional qualification expert training at "Building Project Execution" by the National Institute of Professional Qualifications, Ministry Department of Education 2005-06

SANTIAGO BECERRA. Associate professor.

Courses Taught (2011-12 and 2012-13 academic years):

Construction IV: Envelope Systems (Degree in Fundamentals of Architecture, 402)
Envelope Systems (Degree in Architecture, 309)
Technical systems II (Degree in Architecture 502)
Degree Final Project Instructor: Construction (Bachelor in Architecture, 505)
Construction III (Bachelor in Architecture, 501)
Construction II (Bachelor in Architecture, 403)

Educational Credentials:

2004 Bachelor in Architecture. Polytechnic University of Madrid, Madrid, Spain
2010 Master in Advanced Architectural Design. Polytechnic University of Madrid, Madrid, Spain

Teaching Experience:

Department of Building Technology, Faculty of Architecture, European University of Madrid, Spain – 2009: present

Professional Experience:

Working as independent architect since 2004. (Architectural and Urbanism Services)
Partner and co-founder of Mute Arquitectura, S.L. – 2007: present

Licenses/Registration:

C.O.A.M . Madrid Architects Association

Professional Memberships:

Member of the “Jury list for Architectural Competitions in Architecture and Urban planning section of the Professional Association of Architects of Madrid”

3-*Visiting Team Report* (*VTR*) from the previous visit and *Focused Evaluation Team Reports* from any subsequent Focused Evaluations.

See final annex page 228

4-Catalog (or URL for retrieving online catalogs and related materials)

http://universidadeuropea.es/en/academics/bachelors-degree-in-fundamentals-of-architecture--masters-degree-in-architecture#./bachelors-degree-in-fundamentals-of-architecture--masters-degree-in-architecture?&_suid=140372124495307929871734450262

5-Response to the Offsite Program Questionnaire (See *2010 Procedures,* Section 8)

Not applicable.