2011-13 Cal Poly Catalog

Architecture Department

ARCHITECTURE GRADUATE PROGRAMS

MASTER OF SCIENCE IN ARCHITECTURE

The Master of Science in Architecture is a post-professional degree in the broad field of architecture with an emphasis on environmental planning and design in an information society. Common core studies aim to establish a framework for advanced study and research, while specialization areas and directed electives provide for the development of in-depth study chosen by candidates.

Professional Practice Specialization. Designed for applicants holding an accredited architecture degree wishing to pursue advanced studies with a strong professional practice orientation.

Environmental Design Specialization. Designed for applicants holding a degree in one of the several cognate environmental design disciplines, engineering, or computer science, wishing to pursue advanced studies with a strong inter-professional orientation. This is a post-professional specialized degree in the inter-professional field of environmental design, with special reference to its three primary contributory disciplines of Architecture, City and Regional Planning, and Landscape Architecture. The common core curriculum aims to establish a central focus for advanced study and research, while sub-core studies and directed electives provide for in-depth study in one of the contributory disciplines of Architecture, City and Regional Planning, Architectural Engineering, Landscape Architecture and Construction Management.

Graduate Study Areas. The graduate study topics are challenging. Each is of critical importance to the architecture, engineering, and construction industry. The knowledge and experience students bring to the program are fully employed. At the same time new practices and new knowledge are acquired. These study areas are:

*   *Computer-Aided Design.* Focusing on the development and utilization of computer systems in the architectural process, with particular emphasis on design information representation and management, the development and utilization of knowledge bases, and expert design assistants. Students are encouraged to participate in the research projects undertaken by the CAD Research Center of the College of Architecture and Environmental Design.

*   *Architectural Science.* Focusing on the increasingly complex performance and technical aspects of architectural design and the knowledge and skills needed when designers deal with the challenges associated with such topics as energy responsive architecture, acoustics, lighting, and wind-effects phenomena.

*   *Facilities Management.* Stresses the practice of coordinating the physical workplace with the people and work of an organization. It integrates the principles of business administration, architecture, and behavioral and engineering sciences. Facilities management is concerned with the design, construction, maintenance, and management of physical environments. Facility managers usually work as generalists managing teams of specialists such as architects, interior architects, interior designers, engineers, construction personnel, communication technicians, etc.

*   *Structural Engineering.* For students holding an accredited degree in architectural engineering or civil engineering. To prepare students in meeting the demands for practice in the structural engineering profession.

CURRICULUM FOR MS ARCHITECTURE

Core Curriculum 36
 ARCH 519 Theory of Architecture (3)
 ARCH 551 Architectural Design (5,5,5)
 ARCH 561 Advanced Design (9)
 ARCH 598 Master's Design Project (9)
Directed Electives 9
 Advisor approved elective courses are included in
 a student's formal program of study.
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For further information contact the Graduate Program Coordinator, Architecture Department, College of Architecture and Environmental Design, Cal Poly, San Luis Obispo, CA 93407.

MS Architecture, Specialization in ARCHITECTURAL ENGINEERING

The Architectural Engineering specialization is designed for students holding an accredited degree in architectural engineering or civil engineering who wish to pursue advanced studies in structural engineering. For students within the Cal Poly Architectural Engineering undergraduate program, a blended BS + MS option is available. The program is developed to better prepare students in meeting the demands for practice in the structural engineering profession. Core curriculum courses expose students to emerging topics in structures, advanced methodologies to predict and analyze structural behavior, and cutting edge design procedures. Additionally, related topics in architecture and construction management are integrated into the curriculum to create a unique masters level education. Elective courses allow individuals to concentrate in an area of interest related to environmental design or technology. Individuals conclude their educational experience through a series of project oriented laboratories designed to increase the student's awareness of building design issues using projects, reports, or experimentation, and culminating in a report and oral

presentation. Additionally, candidates should refer to the "General Policies Governing Graduate Studies" section for supplemental University requirements.

Core Curriculum 28
    ARCE 502 Nonlinear Structural Behavior I (3)
    ARCE 503 Nonlinear Structural Behavior II (3)
    ARCE 511 Structural System Behavior (3)
    ARCH 551 Architectural Design (5, 5)
    ARCH 598 Master's Design Project (9)
Directed Electives 18
    Advisor approved elective courses shall be
      included in a student's Formal Study Plan.
                                                  46

For additional information contact the Architectural Engineering Department or the Architecture Department Graduate Program Coordinator.

Blended BS Architectural Engineering + MS Architecture

For motivated students a blended program, also referred to as a 4+1 program, is available. The blended program allows students to simultaneously complete both a bachelor in Architectural Engineering and a Masters in Architecture with a specialization in architectural engineering. The blended program offers promising individuals an opportunity to continue their studies in architectural engineering in a collaborative learning environment.

Eligibility for the Blended Program

Architectural Engineering (ARCE) students wishing to pursue a Masters of Science in Architecture with a Specialization in Architectural Engineering may apply after completing all 300-level Architectural Engineering courses and 180 units. The ARCE Graduate Committee reviews all applications and selects individuals with records that demonstrate success at the undergraduate level as well as potential to succeed at the graduate level. Candidates shall meet the University requirements, as a minimum, stated in "Blended BS+MS Programs" in the Graduate Programs section. Contact the Architectural Engineering Department for additional information.

MBA – Architectural Management Track
This track is available only to those students who are enrolled in Cal Poly's Bachelor of Architecture (BArch) program. During the fifth/final year of the architecture program, students may request permission to enroll in MBA courses. The request, along with all supporting documents, must be submitted to the Orfalea College of Business – Graduate Programs Office. Permission to participate in the courses is competitive and based upon the student's previous academic performance and GMAT/GRE results.

Upon completion of the BArch degree, students are eligible to formally apply to the University for admission to the MBA program. Students who fulfill all the requirements first receive the BArch and then the MBA.

MBA Common Required Courses (36)
    GSB 511 Accounting for Managers......................... 4
    GSB 512 Quantitative Analysis 4
    GSB 513 Organization Behavior 4
    GSB 523 Managerial Economics............................ 4
    GSB 524 Marketing Management 4
    GSB 531 Managerial Finance................................. 4
    GSB 533 Aggregate Economic Analysis & Policy ... 4
    GSB 534 Production and Operations Mgmt 4
    GSB 562 Seminar in General Mgmt & Strategy *or*
      GSB 567 Adv Sem International Business Mgmt
      or other approved culminating experience........... 4
Approved electives... 24
    One elective must satisfy the Orfalea College of
    Business' international course requirement
                                                 60

MCRP, ARCHITECTURE PLANNING TRACK
This track is available only to students who are enrolled in Cal Poly's Bachelor of Architecture (BArch) program. Students may request permission to enroll in Master of City and Regional Planning (MCRP) graduate level courses during their fourth and fifth years of study. Upon completion of the BArch degree, students are eligible to formally apply for graduate student status in the MCRP program. Students who fulfill all the requirements first receive the BArch and then the MCRP. Contact the Graduate Coordinator, City and Regional Planning Department for additional information.