



THE CATHOLIC UNIVERSITY OF AMERICA

Catalog Announcements - 2015-2016

School of Architecture and Planning



[^top](#)

Officers of Instruction

Faculty

Randall Ott, M.Arch., AIA	Dean, Professor
Ann Cederna, M.Arch., AIA	Professor
Luis Eduardo Boza, M.Arch.	Associate Professor
Barry D. Yatt, B.Arch., FAIA	Professor
Patricia Andrasik, M.Arch., AIA, IIDA, LEED AP	Assistant Professor
Hollee Becker, M.Arch.	Associate Dean for Student Affairs, Assistant Professor
Julio Bermudez, Ph.D.	Associate Professor

TABLE OF CONTENTS

- [School of Architecture and Planning](#)
- [Officers of Instruction](#)
- [Mission](#)
- [Goals](#)
- [Degree Programs](#)
- [Accreditation](#)
- [Location](#)
- [Faculty and Resources](#)
- [Foreign Studies](#)
- [Special Programs](#)
- [Degree Requirements](#)
- [Other Information](#)
- [Program of Studies](#)
- [Footnotes](#)

Hazel R. Edwards, Ph.D., AICP	Director MCRP Program, Associate Professor
Lavinia Fici Pasquina, M.Arch., RA (Italy)	Associate Professor
Christopher P. Grech, B.Arch., RIBA	Director MSSD Program, Associate Professor
Vytenis Gureckas, M.S.B.D., RA	Associate Professor
Miriam Gusevich, M.Arch.	Associate Professor
G. Bradley Guy, B.Arch. MSAS	Assistant Professor
Stanley I. Hallet, M.Arch., FAIA	Professor
Charles Hostovsky, Ph.D.	Assistant Professor
Eric J. Jenkins, M.Arch., M.Des.S., AIA	Associate Professor
J. Ronald Kabriel, M.Arch.	Assistant Professor
Julius S. Levine, B.S.CE., M.C.P., FAICP	Professor
Judith Meany, Ph.D., FAICP	Associate Dean for Academic Affairs, Clinical Associate Professor
Adnan Morshed, Ph.D.	Associate Professor
Theodore Naos, M.Arch.	Professor Emeritus
Walter D. Ramberg, B.Arch., AIA	Professor Emeritus
John V. Yanik, M.Arch., AIA	Professor Emeritus

Associates of the Faculty

David Dewane, M.Arch.	Clinical Assistant Professor
Matthew L. Geiss, M.Arch	Lecturer
William A. Jelen, M.Arch., AIA	Project Manager; Solar Decathlon, Direct; CUAdc,
Mark McInturff, B.Arch., FAIA	Lecturer
Iris Miller, M.Arch., ASLA	Lecturer
Travis L. Price III, M.Arch., FAIA	Lecturer
David Shove-Brown, B.Arch., AIA	Director: Experiences in Architecture, Lecturer
Rafael Vargas, M.Arch.	Lecturer
Timothy Bertschinger	Lecturer
Ming Hu	Lecturer
Fernando Iribarren	Lecturer
William Bonstra	Lecturer
Jui-Chen (Roger) Chang	Lecturer

George Dove, M.Arch.	Lecturer
Karl DuPuy	Lecturer
Hussan Elkhraz, M.Arch.	Lecturer
Eric Liebmann	Lecturer
Paul Totten, P.E. (MD, VA), LEED AP	Lecturer

Mission

Our school's mission, *Building Stewardship*, focuses on preparing architects and designers to assume a personal responsibility for the welfare of the world. We stress the interdependence of the words 'building' and 'stewardship.' We focus on how stewardship itself must be designed and constructed, as process and result - how humanity must actively *envision and build* a collective ethos of stewardship. Experienced in the integrative, creative and holistic process of design, architects and planners are uniquely positioned to help forge a compelling contemporary attitude toward stewardship for society at large. In addition, our school focuses on how we must be capable *stewards* when we indeed do physically build. We must care deeply for the impact our projects will have upon past and future human efforts and upon the fragile natural wonder of our globe.

We interpret stewardship broadly: it encompasses understanding the built and natural environments, protecting and preserving these resources. It promotes social justice and respect for the quality of human life for fellow citizens. It treasures the vitalizing potential of aesthetics. This broad humanistic interpretation of stewardship encompasses a variety of aims, including ethical responsibilities, beauty, community involvement, responsible development, preservation of the urban fabric, appropriate technological innovation, and livability. All of these impact our school's attitude toward our traditional tasks of teaching, research and service.

In keeping with The Catholic University of America's mission of service to the Church, to the community and to the nation, our school educates future architects and designers to be engaged and active citizens in their communities and the world at large. To embrace this holistic approach, CUArch emphasizes:

Design Excellence: We focus on design methodology as a model for stewardship efforts. We emphasize exemplary design through the exploration of projects at a variety of scales, programs and cultural settings using a balance of theoretical/technical knowledge and hand/digital craft. Our belief is that good design means good stewardship.

Interdisciplinary Study: Researchers and practitioners must be good observers and listeners. Our school broadens students' understanding of the world around them and the challenges of stewardship. We engage other campus disciplines in the work of the school, so that students understand architecture's place within a larger, interconnected, and dynamic context.

Washington, DC, as a Design Laboratory: Our mission resonates powerfully within our nation's capital. We encourage a hands-on immersion in the reality of stewardship. We embrace our city and its diverse metropolitan area through numerous cooperative projects with governmental agencies, funding organizations, arts and museum groups, and local universities. CUAdc, our design collaborative, provides *pro bono* design services to nonprofit and community groups. For comparative purposes, we augment the experience of Washington with an outstanding array of foreign travel options.

Our belief is that we are all stewards of this earth. Architects and planners have the skills to help forge a true difference in humanity's future.

Goals

Historically, the profession of architecture has placed the highest priority on the artful creation of place, incorporating Vitruvius' three principles. Consequently, the architect must be well versed in the arts, technically skilled, and possess a deep understanding of the human condition. Thus, the school seeks to impart a proper sense of ethics and a spirit of service to the community and the emphasis on these qualities gives professional training its distinctive character at The Catholic University of America.

The School of Architecture and Planning is dedicated to the professional education of those who will design, build and conserve the built environment, principally as architects and planners. The goal of the undergraduate program is to provide the student with the knowledge, skills and abilities fundamental to his or her training as a professional, enriched

with a broad foundation in the humanities.

Degree Programs

Preprofessional Studies

CUA offers a four-year preprofessional undergraduate Bachelor of Science in Architecture degree. The undergraduate program is offered to those seeking a foundation in the field of architecture, as preparation for continued education in a professional degree program, or for employment options in fields related to architecture. The undergraduate program in architecture consists of 126 semester credit hours of study, usually accomplished in four years of study.

The undergraduate curriculum introduces the student to the world of architecture in increasingly intensive stages. The first year of study includes a grounding in the liberal arts and introductory courses in design. The remaining years provide an intensive education in the art and science of design.

Professional Studies

CUA offers professional two Master of Architecture degree programs, for those whose undergraduate degree is architecture (the MArch2) and is not in architecture (the MArch3) in architecture.

Post- and Non-Professional Studies

CUA also offers Masters degrees in City and Regional Planning (MCRP), Sustainable Design (MSSD), and Architectural Studies (MAS), this last one for those who already have a professional M.Arch and are interested in pursuing further studies. We also offer two certificate programs, one in Real Estate Development and another in Sustainable Design, for working professionals who want to increase their competency without enrolling in a full degree program.

Interdisciplinary Studies

For undergraduates, a joint degree program leading to the degrees of Bachelor of Science in Architecture and Bachelor of Civil Engineering is available to students who want to combine the practice of architecture and engineering. Interested students should contact the School of Architecture and Planning for specific information. For graduate students, joint degrees are available combining either of the M.Arch programs with one of our non-professional degrees.

Accreditation

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board, NAAB, which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes professional degrees at three levels: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. From a professional standpoint, all are equal. CUA's professional degree is at the Masters level. NAAB grants eight-year, three-year, or two-year terms of accreditation depending on the extent of a program's conformance with established educational standards. Accreditation teams visit every school to give their recommendation for NAAB approval. CUA was last visited in spring 2015 and received a full eight year accreditation approval.

At CUA, our M.Arch3 program is accredited on its own, while our M.Arch2 is accredited as a package with our pre-professional undergraduate degree program. The preprofessional degree is not, by itself, accredited by NAAB.

Location

CUA's location in Washington, D.C., puts students in touch with unparalleled professional and cultural resources. CUA's spacious campus lies within a 10-minute subway ride or drive of the U.S. Capitol and the National Mall. Numerous national and international experts live and work in the vibrant and diverse metropolitan area and contribute to the undergraduate program each academic year.

The specialized expertise of these associates of the faculty allow the school to offer an outstanding array of graduate coursework. The school has had relationships with numerous Washington, D.C., cultural and artistic institutions, including the National Building Museum, the Library of Congress, and others. In addition, the school's location offers it unparalleled access to many national chapter headquarters of various design-oriented organizations, such as The American Institute of Architects, AIA, the Association of Collegiate Schools of Architecture, ACSA, the National Architectural Accrediting Board, NAAB, and the American

Institute of Architecture Students, AIAS. The school has also over the last several years maintained a relationship with various embassies in the region, sponsoring cooperative lecture and exhibit programs with the Finnish embassy, the Swiss embassy, the Austrian embassy, and others.

Faculty and Resources

Many of our faculty members are recognized as leaders in the design and professional realms with world-famous guest critics and lecturers augmenting the full-time teaching staff. Student-teacher ratios in studios are kept small to ensure that students receive intensive one-on-one critiques and advising from their critics.

Our award-winning facilities are housed in the original CUA gymnasium and provide a classic example of adaptive re-use at its best. Designed by the faculty and students, the architecture center was conceived as a small city with "streets" filled with students and their work, a "piazza" for special exhibits, and a "town hall" for lectures and meetings. In addition, students' needs are served by our library, computer lab and input/output room, visual resources center, and fabrication labs, which include wood and metalworking shops, two laser cutter and engraving systems, 3D printers and a three-axis CNC milling machine.

Through the Consortium of Universities of the Washington Metropolitan Area, students may take courses at many of the other outstanding institutions of higher learning in the metropolitan area including Georgetown, George Washington, American, Howard, University of Maryland, and others.

Foreign Studies

The School of Architecture and Planning offers a variety of foreign study options for undergraduate students. In the third year of the undergraduate curriculum students may participate in semester-long programs in Rome and Barcelona, both of which offer 18 credits of a studio and other related courses. Paris serves as the venue for selected fourth year undergraduate students, as well as graduate students. Our longest running foreign program, the Patrick Cardinal O'Boyle Summer Foreign Studies Program, is an offering exclusively reserved for graduate students. The program focuses on studio work in Rome and other parts of Italy, with additional travel to two other venues in and around Europe. Travel itineraries change from year to year to enable diverse faculty to plan trips around their past and present contacts and experiences. These programs are GPA-based. A seat in the Cardinal O'Boyle program can also be secured in an intensive design competition in the fourth year of the CUA B.S. in Architecture program.

In addition to these programs, CUA offers many other opportunities for domestic and foreign travel.

Special Programs

Summer Institute for Architecture

Each summer, the School of Architecture and Planning conducts the Summer Institute for Architecture, during which numerous courses at both the undergraduate and graduate levels are offered, including most of the design studios as well as most of the required technology courses. In addition, the school offers numerous courses in history of architecture, graphics, furniture design, landscape architecture, and other related areas. The faculty consists of selected members of the School of Architecture and Planning and invited faculty from other institutions.

A component of the Summer Institute is the Jerusalem Studio, composed of upper-level undergraduate and graduate-level students who are taken on an intensive travel program to the ancient city of Jerusalem. After their travel, these students return to the university to complete a project assignment based on their investigations.

The Summer Institute accepts students from other academic units at The Catholic University of America and from other institutions. Interested students should contact the office of the School of Architecture and Planning for further information and applications.

Degree Requirements

Policies are subject to change. Please consult the School of Architecture and Planning Web site at <http://architecture.cua.edu> for current policies and requirements.

The First Year Experience

All undergraduate students participate in the First Year Experience, a learning-community-based program that combines living arrangement and advising with a core program in the humanities.

English Requirement

All students take ENG 101, Rhetoric and Composition, but some may be placed in ENG 103 (for International students). In addition, all students take Humanities 101. Students with advanced placement credit in English can place out of either or both of these requirements. Students who receive less than a C- in English will be required to repeat the course.

Mathematics Requirement

The mathematics requirement for the architecture program is one semester of MATH108: Elementary Functions, followed by one semester of MATH111: Calculus for Social and Life Sciences. All incoming freshmen must take the math placement exam. Students testing out of one or both of these classes are allowed to take any CUA course of their choosing in place of MATH 108 and/or MATH 111.

Advanced Placement Course Credit

Students who take Advanced Placement courses as part of their high school curriculum may receive college credit for these courses if they earned a score of 4 or 5 on the AP examination. Official test scores must be submitted to the School of Architecture and Planning before such credit can be given.

Transfer Students

The School of Architecture and Planning accepts transfer students at all levels, depending on the availability of studio space. Transfer students can be accepted for both fall and spring semesters. Credit for previous studies, and placement in our curriculum, will be based on an evaluation of their educational record. Those who have experience in architectural design will receive studio assignments based on a review of their portfolios. Portfolios are required as part of the application process for these students. Undergraduate transfer applicants should have a minimum cumulative grade point average of 2.70. Students interested in transferring to The Catholic University of America should contact the university's Office of Admissions for an application and other pertinent information. Graduate transfer applicants should contact the School of Architecture and Planning directly.

Special Program for the Hearing Impaired

In concert with Gallaudet University, located in Washington, D.C., the School of Architecture and Planning offers a program in architecture for hearing impaired students. Under this program students complete their mathematics and liberal arts and humanities courses at Gallaudet University, then transfer to The Catholic University of America to complete their architectural studies. Interested students should contact the admissions office of Gallaudet University.

Grading and Progression Policies

1. A student in the School of Architecture and Planning must maintain a cumulative grade point average, GPA, of 2.0 in order to be in good academic standing.
2. A minimum grade of C- is required in all architecture courses. Students will need to repeat any courses in which they receive a grade of D or F, and will not be allowed to continue to any course for which the D or F course serves as a pre-requisite.
3. Progression: The following sequences of courses must be taken in the order listed:

Fundamentals: ARPL101 then ARPL102

Undergraduate Studio: ARPL201 then ARPL202. Both prior to either 301 or 302. Both prior to either 401 or 402.

Graduate Studio: ARCH504 then 501 then 502 then 503. ARCH505/601 may be taken between 502 and 503.

Architectural History: ARCH135/635 then 136/636 then 235/735

Structures: ARCH321/621 then 322/622 then 421/721

Environmental Systems: ARCH209/509 then 358/758 then 457/757

Policies Concerning Probation and Dismissal

1. Students whose semester grade point average, GPA or whose cumulative GPA falls below 2.00 will be placed on academic probation.
2. Students on academic probation cannot enroll in any studio course (ARCH201, 202, 301, 302, 401, 402).
3. Students who remain on academic probation for two consecutive semesters or have been on academic probation for any three semesters will be dismissed from the university.

4. Students who have stopped following the architecture curriculum must transfer to another school within the university within two semesters or be subject to dismissal from the university.
5. Students who fail three courses in a single semester or whose cumulative GPA falls below 1.50 will be dismissed from the university.
6. Other conditions for dismissal are described in the front section of these Announcements.

Academic Standards and Requirements for Graduation

The undergraduate program consists of 126 semester credit hours. In order to advance to third-year design studios, students must have at least a 2.00 cumulative grade point average and an average GPA of 2.00 for the two second-year studios. Students with an average studio GPA of 2.00 or below must retake their last studio and raise their studio GPA above 2.00 before they may advance to the next studio level. A minimum cumulative grade point average of 2.00 in all courses is required for graduation.

Other Information

Student Government and Professional Organizations

A number of student organizations offer opportunities for students to participate in and act as liaisons to professional organizations. This list currently includes the American Institute of Architecture Students (AIAS), the Construction Specifications Institute (CSI), and the National Organization of Minority Architects (NOMA). Student representatives also serve as liaisons at faculty meetings, on school committees, and on the University Student Council.

Advising

Once admitted to the School of Architecture and Planning, each student is assigned an academic adviser. Normally, the students remain with their assigned adviser for the duration of their program. If appropriate, students may be reassigned to a different adviser, at the discretion of the associate dean.

Students are required to see their advisers at least once a semester for pre-registration for the next semester's classes, but are encouraged to see their advisers any time regarding their academic program and status, career ambitions, internships, and other issues of concern. Students are responsible for knowing the requirements of their specific programs and for keeping track of their progress in working toward their degrees.

Program of Studies

Bachelors of Science in Architecture

Core Program-Suggested Sequence

First year

Course #	Course Title	1st	2nd
ARCH 101	Architecture Foundations I	3	-
ARCH 102	Architecture Foundations II	-	3
LC PHIL 201,202	Classical Mind	3	3
LC ENG 101, LC TRS201	Rhetoric and Composition, Faith and Seeking Understanding	3	3
HUM 101	Classics in Conversation	3	-
MATH108,111	Pre-calculus, Calculus	3	3
PHYS 101	20th Century Concepts	-	3
	Total	15	15

Second Year

Course #	Course Title	1st	2nd
----------	--------------	-----	-----

ARCH 201, 202	Architectural Foundations 3, Architectural Design 1	3	6
ARCH 211,212	History of Architecture 1,2	3	3
ARCH 231,232	Introduction to Sustainability, Environmental Design	3	3
LSE	Liberal Study Elective	3	-
SSE	Social Science Elective	3	-
TRS	Religion Elective III	-	3
	Total	15	15

Third Year

Course #	Course Title	1st	2nd
ARCH 301, 302	Architectural Design 2, 3	6	6
ARCH 311	History of Architecture 3	3	-
ARCH 331	Environmental Design 2	3	-
ARCH 333	Construction 1: assemblies and detailing	3	-
LSE	Liberal Studies Elective	3	-
ARPL 314	Introduction to Architectural Theory	-	3
ARPL	Program Elective	-	3
	Liberal Studies Elective I	3	-
	Total	18	15

Fourth Year

Course #	Course Title	1st	2nd
ARCH 401, 402	Architectural Design 4, Comprehensive Building Design Studio	6	6
ARCH 441, 442	Structures I, II	3	3
ARCH 421	Digital Construction Documents	3	-
LSE	Liberal Studies Elective	3	-
TRS	Religious Studies Elective	-	3
ARCH 432	Comp. Building Studio Supplement	-	3
	Construction 2: Materials & Methods	-	3
	Total	18	15

Students who transfer to CUA from a community college, college, or university:

1. Will be considered on a case-by-case basis, and a custom curriculum will be developed for each student.
2. Will be required to take at least 60 credits at CUA, and at least 30 of their last 36 credits.
3. Admission to the program requires a minimum grade point average of 2.70.

Courses Offered

A full listing of undergraduate courses offered by the School of Architecture and Planning can be found below. Consult [Cardinal Station](#) for additional information about courses and to determine course offerings by semester.

Course Catalog for Architecture and Planning**ARPL**

101	Architectural Foundations I: Introduction to Architecture	This course introduces students to the world of design and architecture, its concepts, theory, language, practice, and ethics, and to associated and related fields (such as interior, landscape, graphic, and industrial design, to planning, construction, and development). It also introduces them to the world of the architectural student and intern and to management of the demands it will make of them. Students will learn to raise their powers of observation and design awareness, and increase their sensitivity toward the quality of the designed environment.
102	Architectural Foundations II: Design Tools	The purpose of this course is to develop the student's visual thinking and communication skills and to introduce systems of architectural representation in various media. Students will develop the ability to represent three-dimensional artifacts and buildings in two dimensions (plan, section, and elevation) and in three dimensions (parallel drawings and perspectives). Representation systems to be investigated will include analog modes (hand drafting, hand drawing, and physical modeling) as well as digital modes (two- and three-dimensional computer graphics). Some diagramming will also be introduced. This is primarily a skills studio not a design studio.
201	Architectural Foundations III: Design Analysis & Synthesis	In this course, students will learn basic theories of graphic, architectural, and urban design composition and form, and will be introduced to basic process of design and design thinking. They will then use these theories and processes to assess the design intent of existing architectural and urban design projects and to describe, diagram, and document design intent graphically (2D and 3D, manually and digitally), orally, and in writing. The intent of the course is to prepare students for later design studios, where they will need to be able to think about and describe the design intent of their own projects.
202	Architectural Design I	This studio continues to explore the Fundamental Language of Architecture. Students are expected to use and build on the knowledge gained in ARPL 101, 102, 201 and the history sequence. More specifically, ARPL 202 introduces architectural problems addressing essential spatial, formal, material, and experiential dimensions of architecture. The goal is to develop a student's foundational theoretical, methodological, and communicational toolbox through a synthetic and analytical series of disciplined, systematic and open-ended design tasks involving a range of media (sketching, drafting, modeling and digital image editing / 3D). The studio uses simple programs on real locations (urban or landscape) to teach how to respond to site, program, building type, environment, and ideas through the pursuit of an all-encompassing scheme or parti. Prerequisite 201

211	History of Architecture I	This course explores the history of world architecture and city planning from its beginnings to the end of the Romanesque period (Carolingian). Examples will be discussed with respect to aesthetic principles, symbolism and cultural meaning, site and urban design, spatial sequence, detailing, and construction and systems technology, and in the context of their behavioral, cultural, political, religious, ecological, and economic environments.
212	History of Architecture II	This course explores the history of world architecture from the early middle ages to the dawn of the modern era (mid-eighteenth century). Examples will be discussed with respect to aesthetic principles, symbolism and cultural meaning, site and urban design, spatial sequence, detailing, and construction and systems technology, and in the context of their behavioral, cultural, political, religious, ecological, and economic environments. technology, and in the context of their behavioral, cultural, political, religious, ecological, and economic environments.
221	Pre Design	The first task in designing a project is finding out what is meant by "the project". In this course, students learn to define project problems in terms of mission, value, cost, planning, urban design, ecology, program, code, and life-cycle. Further, they learn to develop and propose design guidelines related to each, and learn to communicate their findings and recommendations to project stakeholders.
231	Introduction to Sustainability	This course examines the contemporary architectural endeavor as an ecologically sustainable activity, surveys vernacular and traditional passive technologies and examines current theoretical approaches to sustainability, all as a means to define possible templates for practice. Case studies of state-of-the-art technologies and buildings will be used by instructor and students.
232	Environmental Design I	This course explores the thermal and lighting issues in design. It explores passive and active (mechanical) responses to achieving thermal comfort goals as they relate to climatic and solar conditions. It also explores passive (daylighting) and active responses to achieving visual comfort goals related to environmental conditions and behavioral needs.
301	Architectural Design II	Architectural Design I studio explores the relationship between buildings and the city via the design of a civic or cultural institution of a moderate scale. The studio focuses on the development of the tectonic expression between the building envelope, the interior spaces, and the exterior spaces of the city. In an urban context, buildings have the potential to define the public realm. In the exploration of the public/private spectrum throughout a variety of scales, from city to room to the elements of architecture and furniture, students are introduced to the ability of architecture to provide opportunities for social interaction and individual behavior. Attention should be paid to the site context as a great influence on design solutions. The resolution of site as a particular condition and building types as ideal organizations will be central to the design exploration, while structure and tectonics, basic sustainable environmental control, and some basic zoning and building code issues will also be of concern.
302	Architectural Design II	This course works at a scale larger than the individual building urban design that brings together the spatial concerns of architecture and the public policy issues of planning. It explores how the architectural concerns of the individual building can be adapted for the scale and complexity of the urban condition, looking at spatial strategies for the design of the public corridors and outdoor rooms that define a city, with a focus on appropriate use,

building typologies and density for a given location. The course also emphasizes communication skills both verbal and graphic, necessary to express the big idea(s) that generate a solution, indicate the precedents that informed the design, and mine a site for clues to appropriate design.

- 311 History of Architecture III This course traces the recent history of architecture and urbanism from the dawn of industrialism and the rise of cities (mid-eighteenth century) to the present. Examples will be discussed with respect to aesthetic principles, symbolism and cultural meaning, site and urban design, and construction technology, and in the context of their behavioral, cultural, political, religious, ecological, and economic environments. Students are encouraged to understand the importance of precedents, to consider a diversity of viewpoints, and to evaluate buildings through critical inquiry.
- 314 Introduction to Architectural Theory This course surveys the body of theories that have shaped the discourse, production, practice, reception, and representation of architecture. It explores the historical, social, and cultural milieu of architecture and the ways that architectural theory simultaneously informs and is informed by other domains of cultural production such as art, science, technology, economics, sociology, philosophy, and politics.
- 331 Environmental Design II This course explores both passive (natural) and active (mechanical) approaches to managing lighting; power; communications; domestic water supply and waste, storm water; fire detection, suppression; and annunciation; acoustics; and conveyances.
- 333 Construction I: Assemblies and Detailing This course explores the basic options in architectural construction and detailing from the perspective of a designer, including assembly options. It reviews the practical and professional considerations inherent in making decisions about building systems, with an emphasis on the desired performance characteristics of each system and its potential for effective integration throughout the design and construction process. It also introduces, at a very basic level, the concepts and techniques of technical documentation including construction drawing.
- 401 Architectural Design IV This studio has students choose from among several projects developed by different critics that cover different issues. In all cases, however, projects build upon the formal and tectonic body of knowledge explored in 200 and 300 level studios, though of increased scale and programmatic complexity. They require students to take project development to a greater level with emphasis on design across a range of scales including that of the region, the city, the building, the interiors, the furniture, and/or the detail. Since students with the best projects earn places in our foreign studies program, competition between them raises the bar for verbal and visual communication.
- 402 Comprehensive Building Design Studio This studio explores comprehensive design and team management, simulating architectural practice. Students are challenged to include conceptual and technical aspects of architectural form and the integration of the various building assemblies and systems. Each student is expected to bring the knowledge, skills, and understanding gained from all previous coursework and experiences to the development of a conceptually coherent, comprehensive, integrative, and buildable architectural design proposal. Studio work will include schematics, integrating major building systems and sustainable strategies with design at a conceptual level shown in conceptual drawings of

structural, mechanical, passive environmental and lighting systems; design development: using large scale models and drawings to test initial ideas and the integration of these ideas; studying materials and details of assembly including vertical surfaces relative to framing systems, wall sections and details of assembly; and presentation: with final models and drawings of site plan, plans, sections, and elevations.

- 421 Digital Construction Docs Architects and engineers document their designs so that everyone involved can come to agreement on what is to be built before construction starts. The traditional blueprints and specifications that served this purpose for decades have evolved into digital Building Information Models (BIMs). In this course, students will learn to plan, produce, and manage BIMs, and produce one of limited scope. Students will be expected to start the course already able to create 3D models using BIM-compatible software (Rhino, Revit, or other if approved by teacher).
- 432 Comprehensive Building Supplement
- 434 Construction II: Materials and Methods This course exposes students to the exploration of materials and their functional implications. Information presented in this course will explore the considerations inherent in making decisions about material selection, with particular emphasis on the desired performance characteristics as well as the capacity of the material to produce or amplify the experiential. The course is offered as the second part of the introduction to construction concepts, technical information and strategies, material and systems resources and professional-level understanding of the most important aspects of the making of contemporary buildings. While the scope of the course is broad, it is not, and could never be, a comprehensive treatment of all issues regarding material selection and specifications. However, the course will offer numerous strategies by which the young architectural professional may continue to augment the material presented here during further graduate studies and professional experience.
- 441 Structures I This course provides an introduction to structural design, exploring force (including lateral loading), statics, equilibrium, and load tracing. It introduces structural analysis of beams, trusses, and cable structures. Students experiment on structural systems including those that are form-active, vector-active, bulk-active, and surface-active.
- 442 Structures II This course continues exploring structural mechanics from Structures I and adds strength of materials, focusing on mechanical properties of structural materials, thermal effects on structures, strength, and deformation of structural components. The course introduces concepts of stress, strain, deflection, bending, and buckling of linear structural components. Additional topics include shear and bending diagrams, deflection in beams, mechanical properties of structural sections, and analysis and design of beams, and columns.

[2] Social Science elective requirement is three semester hours in one of the following: Anthropology, Economics, Psychology, Political Science, or Sociology.

Program of Studies

Bachelors of Arcts in Architecture**Core Program-Suggested Sequence****Major Requirements in the School of Architecture and Planning****Required Core Course- 15 credits**

Course #	Course Title	
ARCH 101	Architecture Foundations I	3
ARCH 102	Architecture Foundations II	3
ARCH 201	Architecture Foundations III	3
ARCH 211	History of Architecture 1	3
ARCH 231	Introduction to Sustainability	3
	Total	15

Program Electives within School of Architecture and Planning**Required 21 credits**

Course #	Course Title	
ARCH 202	Architectural Design 1	6
ARCH 212	History of Architecture 2	3
ARCH 232	Environmental Design	3
ARCH 311	History of Architecture 3	3
ARCH 314	Architecture Theory	3
ARCH 333	Construction 1: Assemblies and Detailing	3
ARCH 583	History of American City Planning	3
ARCH 504	Spirit of Place	3
ARCH 506	Portfolio Design	3
ARCH 515	Beauty and Brains	3
ARCH 516	Oriental Western Landscapes	3
ARCH 524	Practice Law, Real Estate and Planning	3
ARCH 558	Animation in Architecture and Design	3
ARCH 559	Emerging Technologies	3

Liberal Arts and Sciences Distribution Requirements

Course #	Course Title	1st
LC ENG 101	Rhetoric and Composition	3
LC TRS201	Faith and Seeking Understanding	3
LC PHIL 201,202	Classical Mind, Modern Mind	6
MATH108,111	Pre-calculus, Calculus	6
PHYS 101	20th Century Concepts	3

3 additional TRS courses	9
2 additional PHIL courses	6
3 additional LSE	9
1 additional SSE	6
1 LS Language Requirement	3

Students who transfer to CUA from a community college, college, or university:

1. Will be considered on a case-by-case basis, and a custom curriculum will be developed for each student.
2. Will be required to take at least 60 credits at CUA, and at least 30 of their last 36 credits.
3. Admission to the program requires a minimum grade point average of 2.70.

Courses Offered

A full listing of undergraduate courses offered by the School of Architecture and Planning can be found below. Consult [Cardinal Station](#) for additional information about courses and to determine course offerings by semester.

[2] Social Science elective requirement is three semester hours in one of the following: Anthropology, Economics, Psychology, Political Science, or Sociology.

Program of Studies

Bachelors of Science in City and Regional Studies

Core Program-Suggested Sequence

First year

Course #	Course Title	1st	2nd
ARCH 101	Architecture Foundations I	3	-
ARCH 102	Architecture Foundations II	-	3
LC PHIL 201,202	Classical Mind	3	3
LC ENG 101, LC TRS201	Rhetoric and Composition, Faith and Seeking Understanding	3	3
HUM 101	Classics in Conversation	3	-
MATH108,114	Pre-calculus, Probabilities and Statistics	3	3
PHYS 101	20th Century Concepts	-	3
	Total	15	15

Second Year

Course #	Course Title	1st	2nd
ECON 101	Principles of Macroeconomics	3	-
SOC 202	Research Methods 3	3	3
ARCH 231	Introduction to Sustainability	3	-
LSE	Liberal Study Elective	3	-
TRS	Religious Studies Elective	3	-
ARCH	Introduction to Contemporary Urban Planning		3
ARCH	Understanding Urban Complexities		3
ARCH	Understanding Urban Complexities		3
ECON 102	Principles of Microeconomics		3

SSS 326	Principles of Microeconomics		3
TRS	Religious Studies Elective	3	-
	Total	15	15

Third Year

Course #	Course Title	1st	2nd
ARCH 586 c	Introduction to GIS	3	
ARCH	Urban Lab	3	-
POL	Advisor Approved	3	-
LSE	Liberal Studies Elective	3	-
ARCH	Urban Lab		3
SOC 101	Global Social Problems and Justice (or appr'd equiv.)	-	3
MGT 323	Management: Theory and Practice	-	3
	Free Elective 1,2,3	3	6
	Total	15	18

Fourth Year

Course #	Course Title	1st	2nd
ARCH	Urban Lab 3	3	
SOC 201	The Human Condition: Culture, Society, and Personality (or appr'd equiv.)	3	
LSE	Liberal Studies Elective	3	-
SSE	Social Science Elective	3	
ARCH	Capstone City and Regional Studies Project	-	3
ARCH 586d	Politics and the City (or appr'd equiv.)	-	3
MGT 320	Leadership and Organization		3
	Free Elective 4,5	3	3
	Total	18	15

Students who transfer to CUA from a community college, college, or university:

1. Will be considered on a case-by-case basis, and a custom curriculum will be developed for each student.
2. Will be required to take at least 60 credits at CUA, and at least 30 of their last 36 credits.
3. Admission to the program requires a minimum grade point average of 2.70.

Courses Offered

A full listing of undergraduate courses offered by the School of Architecture and Planning can be found below. Consult [Cardinal Station](#) for additional information about courses and to determine course offerings by semester.

[2] Social Science elective requirement is three semester hours in one of the following: Anthropology, Economics, Psychology, Political Science, or Sociology.

Program of Studies**Bachelors of Science in Environmental Studies****Core Program-Suggested Sequence****First year**

Course #	Course Title	1st	2nd
ARCH 101	Architecture Foundations I	3	-
ARCH 102	Architecture Foundations II	-	3
LC PHIL 201,202	Classical Mind	3	3
LC ENG 101, LC TRS201	Rhetoric and Composition, Faith and Seeking Understanding	3	3
HUM 101	Classics in Conversation	3	-
MATH108,111	Pre-calculus, Calculus	3	3
PHYS 101	20th Century Concepts	-	3
	Total	15	15

Second Year

Course #	Course Title	1st	2nd
ARCH 201	Architectural Foundations 3	3	-
ARCH 231	Introduction to Sustainability	3	-
ARCH	History of Architectural Technology	3	-
SSE	Social Science Elective	3	-
TRS	Religion Elective III	3	-
ARCH	Environmental Studies Workshop	-	3
ARCH	Systems Thinking	-	3
ARCH 232	Environmental Design	-	3
TRS	Religion Elective III	-	3
—	Free Elective	-	3
	Total	15	15

Third Year

Course #	Course Title	1st	2nd
ARCH	Building Construction and Waste	3	-

ARCH	Water Use and Infrastructure	3	-
BIO 114	Field Biology for Non-Science Majors	3	-
LSE	Liberal Studies Elective		
—	Free Elective	3	6
ARCH	Environmental Studies Workshop	-	3
ARCH 538	LEEDlab	-	3
LSE	Liberal Studies Elective	3	-
	Total	18	15

Fourth Year

Course #	Course Title	1st	2nd
ARCH	Environmental Studies Workshop	3	-
ARCH	Environmental Assessment of the Built Environment	3	-
ENG 314	Introduction to Alternative Energy	3	-
SSE	Social Science Elective	3	-
ARCH	Capstone Environmental Studies Project	-	3
ARCH	Sustainable Materials	-	3
EE459	Introduction to Wind Energy Technology	-	3
—	Free Elective	-	3
	Total	18	15

Program of Studies**Undergraduate Minor in Architectural Studies****Minor Requirements in the School of Architecture and Planning**

Course #	Course Title	1st
ARCH 101	Architecture Foundations I	3
ARCH 211,212	History of Architecture 1,2	6
	Total	15

Program Electives (3)

Course #	Course Title	1st
ARCH 102	Architecture Foundations II	3
ARCH 231	Introduction to Sustainability	3
ARCH 311	History of Architecture 3	3

ARPL 314	Introduction to Architectural Theory	3
ARPL	Approved by the Advisor	3

Students must complete REQUIREMENTS prior to enrolling in any ARCH elective

Program of Studies

Undergraduate Minor Sustainable Design

Minor Requirements in the School of Architecture and Planning

CURRICULUM

To qualify for this minor students must take one course in each of the categories A to D listed below as well as two electives from the approved list (category E).

Advising will be undertaken by Prof. [Chris Grech](#), School of Architecture & Planning and [Patricia Galindo](#), School of Arts and Sciences.

One course in each category:

A. Course in ethics	3 credit hours
B. Course in science and technology	3 credit hours
C. Course in social sciences	3 credit hours
D. Course in sustainable operations and practices*	3 credit hours
ELECTIVES	
E. Two electives from a pre-approved list	6 credit hours
These electives can be selected from any of the courses listed in the categories A and D above.	
Total	18 credit hours
* Apart from the courses listed in this category students may undertake an approved internship.	

Footnotes

Last reviewed: August 28, 2015



The Catholic University of America * 620 Michigan Ave., N.E. * Washington, DC 20064