

## IV. School of Architecture and Planning

### Officers of Instruction

#### Administration

Randall Ott, M.Arch., AIA

*Dean, Professor*

Hollee Becker, M.Arch.

*Associate Dean for Student Affairs, Associate Professor*

Patricia Andrasik, M.Arch., AIA, IIDA,

*Associate Dean for Undergraduate Studies, Assistant Professor*

#### Faculty

Julio Bermudez, Ph.D.

*Professor*

Ann Cederna, M.Arch., AIA

*Professor*

Lavinia Fici Pasquina, M.Arch., RA (Italy)

*Associate Professor*

Vytenis Gureckas, M.S.B.D., RA

*Associate Professor*

Miriam Gusevich, M. Arch

*Associate Professor*

Christopher J. Howard, RA, NCARB

*Assistant Professor*

Eric J. Jenkins, M.Arch., M.Des.S., AIA

*Professor*

Hyojin Kim, PhD.

*Assistant Professor*

Judith Meany, Ph.D., FAICP

*Clinical Associate Professor*

James McCreery, AIA

*Assistant Professor*

Adnan Morshed, Ph.D.

*Associate Professor*

Carlos Reimers, PhD.

*Assistant Professor*

Barry D. Yatt, B.Arch. AIA

*Professor Emeritus*

Stanley I. Hallet, M. Arch., FAIA

*Professor Emeritus*

Walter D. Ramberg, B.Arch., AIA

*Professor Emeritus*

John V. Yanik, M.Arch., AIA

*Professor Emeritus*

#### Associates of the Faculty

Timothy Bertschinger

*Lecturer*

William Bonstra

*Lecturer*

George Dove, M.Arch

*Lecturer*

William A. Jelen, M.Arch., AIA

*CUAdc*

Eric Liebmann

*Lecturer*

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Mark McInturff, B.Arch., FAIA	<i>Lecturer</i>
Iris Miller, M.Arch., ASLA	<i>Lecturer</i>
Tonya Ohnstad	<i>Lecturer</i>
Douglas Palladino,	<i>Lecturer</i>
Travis L. Price III, M.Arch., FAIA	<i>Lecturer</i>
Robin Puttock, AIA	<i>Lecturer</i>
David Shove-Brown, B.Arch., AIA	<i>Lecturer</i>
Paul Totten, P.E. (MD, VA), LEED AP	<i>Lecturer</i>

## History

The School of Architecture and Planning has a rich history, dating from its founding in 1911 and continues a tradition dedicated to the professional education of those who will design, build, and conserve the built environment. At the turn of the 20th century, gifted architect Frederick Vernon Murphy returned to Washington from the Ecole des Beaux- Arts in Paris and introduced himself to the fourth rector of The Catholic University of America, Rev. Thomas J. Shahan. In 1911, impressed with Murphy's drawings, Rector Shahan found unused attic space at McMahon Hall for a small Department of Architecture. Together, these two great friends planned the early campus, building Gibbons and Maloney Halls, the University Center, the John K. Mullen of Denver Memorial Library, and the old gymnasium, an immense structure that would play a pivotal role in the history and development of architecture at CUA. Returning veterans of WWI forced a growing department to move into the Social Center on the top floor of the old gymnasium. High above the basketball games, the lights were never out as inspired faculty and students captured two national Paris prizes, two American Academy in Rome prizes, four Fontainebleau prizes, and 14 Beaux Arts Institute of Design prizes. In 1928, Thomas H. Locraft won the Paris Prize. He subsequently became the second chair of the department in 1949, following Professor Murphy's retirement.

World War II reduced the department from 50 to six students. However, in 1947, returning veterans swamped the one- room studio, forcing a second move to the remodeled Navy Barracks. Faculty and courses were greatly expanded and a new five- year degree program was introduced. Enrollment and programs continued to grow, and the search for larger and improved facilities continued. During the tenure of the third chair, Dr. Paul A. Goettelmann, from 1959 through the early 1970s, anti- Vietnam War and environmental concerns affected college campuses nationwide. His leadership and talent as an educator convinced architecture alumnus and benefactor Benjamin T. Rome to establish the Patrick Cardinal O'Boyle Foreign Studies Program in 1970, and more recently to endow this important program in perpetuity. Dr. Goettelmann led the department through difficult years with wisdom and charm. Succeeding chairs, professors Forrest Wilson and Peter Blake, developed innovative programs such as the nationally known Summer Institute for Architecture and the four- year Master of Architecture program for students holding non- architectural degrees. Other programs included the four- year pre-professional degree, with sub-concentrations in design, history, planning, and construction management. During the terms of the chairs Wilson and Blake, enrollment in architecture continued to increase.

In 1984 Professors John Yanik and Walter Ramberg led their ARCH 200 "Fast Track" Graduate Students (now the M.Arch 3 Program) in a three- and- a- half week interior design exercise for the architecture program's design studios and exhibition in nine bays of the recently abandoned old CUA gymnasium. Professors Yanik and Ramberg used raw material from this design exercise to develop a schematic design to accommodate the architecture program within the interior of the old gym. With a new chairman, Stanley Hallet, on board, a series of public events were held in the new space that excited students, alumni, and visitors. The success of the project led the university president, the Rev. William J. Byron, S.J., to begin discussions with Mr. Edward M. Crough, general contractor and alumnus of the School of Engineering and construction was completed in October, 1989. In honor of building's major donor, the old gym was named the Edward M. Crough Center for Architectural Studies. The Clarence Walton Media Center was developed and a Model Shop was installed for the construction of furniture and architectural models. The fully equipped Leo A. Daly, Jr., Computer Aided Design Laboratory was implemented through private support, primarily that of the office of his son, Leo A. Daly III, a CUA alumnus, as was his father. The dedication of the renovated former gymnasium as the Edward M. Crough Center for Architectural Studies on Oct. 19, 1989, brought the history of the architecture program at CUA full circle. On May 19, 1992, the Board of Trustees voted to separate the architecture and planning program from the School of Engineering and establish the School of Architecture and Planning, effective Sept. 1, 1992. Stanley Ira Hallet, FAIA, was appointed dean and served as dean until 1996, when he was succeeded by Gregory K. Hunt, FAIA.

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In keeping with the spirit of renovation that had earlier given an impressive new identity to the architecture program, a partial renovation of the lower floor of the Crough Center was initiated to provide new studio, shop, and classroom space for the school. Completed in the spring of 1997, this building project demonstrated yet again the university's continued commitment to providing the best facilities for the study of architecture on the CUA campus. Under the leadership of Dean Hunt, the school embarked on several new initiatives, including additional foreign study opportunities, extensive curriculum revisions, innovative design- build programs and explorations in applied digital design technology.

In 2003, Randall Ott joined the School of Architecture and Planning as dean. Dean Ott continues to advance the school in many ways, including the revision of the undergraduate curriculum, the creation of four graduate concentrations, including Sacred Space/Cultural Studies, Technology + Media in Architecture + Interiors, Real Estate Development and Urban Practice. Dean Ott has introduced several new allied degree programs including Master of City and Regional Planning, Master of Science in Sustainable Design and a Master of Science in Facility Management. The School has endeavored to provide as much educational value for our students by offering joint degrees across all disciplines. The Crough Center has continually been renovated to serve the needs of the students including incorporating the Architecture Library in the lower level of the building and most recently the creation of the digital fabrication lab with advanced 3D printing capacity.

## 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 and Objectives

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

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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

### Pre-Professional Studies

CUA offers a four-year pre-professional 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).

### Post- and Non-Professional Studies

CUA also offers master's degrees in City and Regional Planning (MCRP), Sustainable Design (MSSD), Facilities Management (MSFM) 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 pre-professional degree is not, by itself, accredited by NAAB.

## Location

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Catholic's location in Washington, D.C., puts students in touch with unparalleled professional and cultural resources. Catholic'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 design studios as well as technology courses. In addition, the school offers 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.

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 MATH 111: 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: ARPL 500 then 501 then 502. These introductory studios are followed by enrollment in ARPL 601, 602 and 603.
  - Architectural History: ARPL 211/511 then 212/512 then 311/611
  - Structures: ARPL441/541 then 442/542 then 742
  - Environmental Systems: ARPL232/532 then 331/631

## 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 (ARPL201, 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

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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.

## Programs of Studies

### Bachelors of Science in Architecture Core Program-Suggested Sequence

#### First year

Course #	Course Title	1st	2nd
ARPL 101	Architecture and Foundations I	3	-
ARPL 102	Architecture and Foundations II	-	3
PHIL 201,202	Classical Mind	3	3
ENG 101 TRS201	Rhetoric and Compositions Faith and Seeking Understanding	3	3
LIT	Literature Elective	3	-
MATH 108,111	Pre-calculus, Calculus	3	3
PHYS 101	20th Century Concepts	-	3
<b>Total</b>		<b>15</b>	<b>15</b>

#### Second Year

Course #	Course Title	1st	2nd
ARPL 201, 202	Architectural Foundations 3, Architectural Design 1	3	6
ARPL 211,212	History of Architecture 1,2	3	3
ARPL 232,331	Environmental Design 1,2	3	3
ARPL 333,434	Construction 1,2	3	3
ARPL	Program Elective	3	-
<b>Total</b>		<b>15</b>	<b>15</b>

#### Third Year

Course #	Course Title	1st	2nd
ARPL 301, 302	Architectural Design 2, 3	6	6
ARPL 311	History of Architecture 3	3	-
ARPL 441,442	Structures 1,2	3	3
ARPL 314	Introduction to Architectural Theory	3	-
ARPL	Program Elective	3	3
TRS	2nd TRS Course	-	3
<b>Total</b>		<b>18</b>	<b>15</b>

#### Fourth Year

Course #	Course Title	1st	2nd
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ARPL 401, 402	Architectural Design 4, Comprehensive Building Design Studio	6	6
ARPL 421	Digital Construction Documents	3	-
ARPL	Program Elective Elective	3	3
ARPL	Program Elective Elective	3	-
SSE	Social Science Elective	3	
FAE	Fine Arts Elective	-	3
ARPL 432	Comp. Building Studio Supplement	-	3
<b>Total</b>		<b>18</b>	<b>15</b>

### 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 Students](#) 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.

## Bachelors of Arts in Architecture Core Program

### Major Requirements in the School of Architecture and Planning Required Core Course- 12 credits

Course #	Course Title	Credits
ARPL 101	Architecture Foundations I	3
ARPL 102	Architecture Foundations II	3
ARPL 201	Architecture Foundations III	3
ARPL 211	History of Architecture 1	3
	<b>Total</b>	<b>12</b>

### Program Electives within School of Architecture and Planning - 27 Required credits

Course #	Course Title	Credits
ARPL 202	Architectural Design 1	6
ARPL 212	History of Architecture 2	3
ARPL 232	Environmental Design 1	3
ARPL283	History of American City Planning	3
ARPL 311	History of Architecture 3	3
ARPL 314	Architecture Theory	3
ARPL 333	Construction 1: Assemblies and Detailing	3
ARPL382	Planning Principles	3
ARPL383	Ethics and Stewardship	3
ARPL434	Construction 2: Codes and Specifications	3
ARPL 583	History of American City Planning	3

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ARPL 504	Spirit of Place	3
ARPL 506	Portfolio Design	3
ARPL 515	Beauty and Brains	3
ARPL519	Topics in History/Theory	3
ARPL 524	Practice Law, Real Estate and Planning	3
ARPL537	Sustainable design Strategies	3
ARPL551	Digital Tools 1	3
ARPL 559	Emerging Technologies	3

### Liberal Arts and Sciences Distribution Requirements - 51 Credits

Course #	Course Title	Credits
ENG 101	Rhetoric and Composition	3
TRS 201	Faith and Seeking Understanding	3
LC PHIL 201,202	Classical Mind, Modern Mind	6
MATH 108,114	Pre-calculus, Probability and Statistics	6
PHYS 101	20th Century Concepts	3
TRS	2 additional TRS courses	6
PHIL	1 additional PHIL courses	3
SSE	1 Social Science Elective	3
	4 LS Language Courses	12
FAE	1 Fine Arts Elective	3
HPE	1 History/politics Elective	3

### Electives in student's Approved Area of Interest - 30 credits

#### 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 Students](#) 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.

## Bachelors of Science in City and Regional Studies Core Program-Suggested Sequence

### Major Requirements in the School of Architecture and Planning Required Core Course- 18 credits

Course #	Course Title	Credits
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ARPL 101	Architecture Foundations I	3
ARPL 102	Architecture Foundations II	3
ARPL283	History of American City Planning	3
ARPL289	Transportation and Land Use Planning	3
ARPL383	Ethics and Stewardship	3
ARPL382	Planning Principles	3
	<b>Total</b>	<b>18</b>

### Program Electives within School of Architecture and Planning - Required 21 credits

Course #	Course Title	Credits
ARPL 201	Architecture Foundations III	3
ARPL 202	Architectural Design 1	6
ARPL 211	History of Architecture 1	3
ARPL 212	History of Architecture 2	3
ARPL 232	Environmental Design 1	3
ARPL 311	History of Architecture 3	3
ARPL 314	Architecture Theory	3
ARPL 333	Construction 1: Assemblies and Detailing	3
ARPL434	Construction 2: Codes and Specifications	3
ARPL 504	Spirit of Place	3
ARPL 506	Portfolio Design	<b>3</b>
ARPL 515	Beauty and Brains	<b>3</b>
ARPL519	Topics in History/Theory	<b>3</b>
ARPL 524	Practice Law, Real Estate and Planning	<b>3</b>
ARPL537	Sustainable design Strategies	3
ARPL551	Digital Tools 1	3
ARPL 559	Emerging Technologies	<b>3</b>

### Liberal Arts and Sciences Distribution Requirements - 69 Credits

Course #	Course Title	Credits
ENG 101	Rhetoric and Composition	3
TRS 201	Faith and Seeking Understanding	3
LC PHIL 201,202	Classical Mind, Modern Mind	6
MATH 108,114	Pre-calculus, Probability and Statistics	6
PHYS 101	20th Century Concepts	3
TRS	2 additional TRS courses	6
PHIL	1 additional PHIL courses	3
SOC	3 Social Science Elective	9
POL	2 Political Science Electives	6
	4 LS Language Courses	12
SSS302	Social Welfare Policy 1	3

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SSS326	Diversity in a Multicultural Society	3
ECON101	Macroeconomics	3
ECON102	Microeconomics	3

### Electives in student's Approved Area of Interest - 12 credits

#### 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 Students](#) 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.

## Bachelors of Science in Environmental Studies

### Major Requirements in the School of Architecture and Planning Required Core Course- 15 credits

Course #	Course Title	Credits
ARPL 101	Architecture Foundations I	3
ARPL 102	Architecture Foundations II	3
ARPL 232	Environmental Design 1	3
ARPL383	Ethics and Stewardship	3
ARPL537	Sustainable design Strategies	3
	<b>Total</b>	<b>15</b>

### Program Electives within School of Architecture and Planning - Required 24 credits

Course #	Course Title	Credits
ARPL 201	Architecture Foundations III	3
ARPL 202	Architectural Design 1	6
ARPL 211	History of Architecture 1	3
ARPL 212	History of Architecture 2	3
ARPL283	History of American City Planning	3
ARPL289	Transportation and Land Use Planning	3
ARPL 311	History of Architecture 3	3
ARPL 314	Architecture Theory	3
ARPL 333	Construction 1: Assemblies and Detailing	3
ARPL382	Planning Principles	3
ARPL434	Construction 2: Codes and Specifications	3
ARPL 504	Spirit of Place	3
ARPL 506	Portfolio Design	3

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ARPL 515	Beauty and Brains	<b>3</b>
ARPL519	Topics in History/Theory	<b>3</b>
ARPL 524	Practice Law, Real Estate and Planning	<b>3</b>
ARPL551	Digital Tools 1	3
ARPL 559	Emerging Technologies	<b>3</b>

### Liberal Arts and Sciences Distribution Requirements - 69 Credits

Course #	Course Title	Credits
ENG 101	Rhetoric and Composition	3
TRS 201	Faith and Seeking Understanding	3
LC PHIL 201,202	Classical Mind, Modern Mind	6
MATH 108,114	Pre-calculus, Probability and Statistics	6
PHYS 101	20th Century Concepts	3
TRS	2 additional TRS courses	6
PHIL	1 additional PHIL courses	3
SOC	3 Social Science Elective	9
POL	2 Political Science Electives	6
	4 LS Language Courses	12
BIO114	Field Biology for Non-science Majors	3
EE459	Introduction to Wind Energy Technology	3
ANTH214	Anthropology of Food	3
ANTH217	Migrants, Refugees and the Homeless	3

### Electives in student's Approved Area of Interest - 12 credits

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

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

## Undergraduate Minor in Architectural Studies

### Minor Requirements in the School of Architecture and Planning

Course #	Course Title	Credits
ARPL 101	Architecture Foundations I	3
ARPL 211, 212	History of Architecture 1, 2	6
<b>Total</b>		<b>15</b>

### Program Electives (3)

Course #	Course Title	Credits
ARPL 102	Architectural Foundations II	3
ARPL 232	Environmental Design I	3

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ARPL 311	History of Architecture 3	<b>3</b>
ARPL 314	Introduction to Architectural Theory	<b>3</b>
ARPL	Approved by the Advisor	<b>3</b>

Students must complete REQUIREMENTS prior to enrolling in any ARPL elective

## Interdisciplinary Undergraduate Minor in Sustainability

To qualify for this minor students must take two courses in each of the categories A ,B and C listed below.

SUSTAINABILITY MINOR COURSES		NEW CATEGORY		
		A	B	C
	2 courses from each category = 6 courses	Social	Environmental	Economics
ACCT 417/517	Government and Non-Profit Accounting			X
ACCT 442/542	Accounting Ethics			X
ANTH 214	Anthropology of Food	X		
ANTH 218	End of Nature? Env'l Degradation in a Globalizing Society	X		
ANTH 250	The New Political Anthropology	X		
ANTH 315	Globalization and the Culture of Capitalism	X		
ANTH 322	Lost Cities and Ancient Empires	X		
ANTH 354	The Archeology of Settlements and Landscapes	X		
ARPL539	High Performance Green Buildings		X	
ARPL 232	Environmental Systems Design I		X	
ARPL 331	Environmental Systems Design II		X	
ARPL 523	Real Estate Development			X
ARPL 538	LEEDlab		X	

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ARPL 539-01	Deconstruction: implications on design		X	
ARPL 550	Sustainable Strategies and Synergies		X	
ARPL 571	The Facilities Management Context (1 credit)			X
ARPL 586	Topics in Planning: Environmental Impact Assessment		X	
ARPL 589	Topics in Planning: Sustainable Infrastructure		X	
ARPL 589	Topics in Planning: Environmental Impact Assessment		X	
ARPL 671	Creative Problem Solving (2 credits)			X
ARPL 672	Occupancy Management			X
ARPL 673	Project and Practice Management for FM			X
ARPL 735	Sustainable Materials and Assemblies		X	
ARPL 783	Ethics and Stewardship	X		
ARPL 788	Urban Economics			X
ARPL 789	Transportation and Land Use Planning		X	
ARPL XXX	Approved Internship (3 credits)	X	X	X
CHEM 308	Batteries, Fuel Cells, and Energy Storage		X	
CHEM 311	Analytical Chemistry		X	
CHEM 317	Principles of Environmental Science		X	
CHEM 318	Seminar in Environmental Science		X	
ECON 301	Ethics in Business and Economics			X
ECON 334	Capitalis, Globalization and Consumption			X

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ECON 359	Public Finance			X
ECON 540	Economics of Development and Institutions			X
ECON 551	Economic Development of Latin America			X
ECON 580	International Trade			X
EDUC 422/522	Race, Class, Gender and Disability in Education	X		
EE 420	Hybrid Gas/Electric Vehicles		X	
EE 459	Introduction to Wind Energy Technology		X	
EE 460	Photovoltaics		X	
EE 461	Photovoltaics Laboratory		X	
ENGR 314	Introduction to Alternative Energy		X	
ENGR 538	Introduction to Environmental Engineering		X	
HSEV 101	Environmental Science & Engineering		X	
HSEV 102	Religion, Ethics and Ecology	X		
HSEV 203	The Economics of Energy and the Env't			X
HSEV 204	The Environment, Energy and Policy			X
IEDM 521	Economics and Manag't Aspects of Health, Food, Nutrition			X
IEDM 522	Economic Management Aspects of Energy and Env't			X
IEDM 540	Economics of Development & Institutions			X
IEDM 555	Infrastructure Planning			X
ME 526	Alternative Energy Engineering		X	

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ME 529	Environmental Protection for Energy Systems		X	
ME 530	Applied Energy Systems		X	
ME 532	Design of Power & Propulsion Systems		X	
ME 533	Energy Conservation and HVAC		X	
ME 534	Design of HVAC & Refrigeration		X	
ME 535	Design and Optimization of Energy Systems		X	
ME 536	Thermal Environmental Engineering		X	
ME 537	Air Pollution and Control		X	
ME 539	Combustion and Fuels		X	
ME 544	Introduction to Multiphase Flows & Systems		X	
ME 550	Solid Waste Management		X	
MGT 301	Ethics in Business and Economics	X		
MGT 312	Supply Chain Management			X
MGT 335	Energy: Lifeblood of the American Economy			X
NURS 257	Nutrition	X		
NURS 2XX	Public Health	X		
NURS254A	Health and Wellness across the lifespan	X		
PHIL 362	Professional Ethics in Engineering	X		
PHYS 101	20th Century Physics		X	
POL 478	Environmental Politics	X		

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POL 519B	Environmental Politics and Policy	X		
POL 666	Environment and Development in the Americas	X		
SOC 102	Global Social Problems and Social Justice	X		
SOC 321	Religion and Development	X		
SOC 338	The Urban Metropolis	X		
SOC 423	Comparative Development and Social Change	X		
SOC 433	Environmental Justice and Ethics	X		
SPAN 310	Contemporary Hispanic Issues	X		
TRS 230	Introduction to Moral Theology/Ethics	X		
TRS 381	Ways of Peace in World Religions	X		
TRS 385	Religion and Ecology	X		