



**THE CATHOLIC UNIVERSITY OF AMERICA  
SCHOOL OF ARCHITECTURE & PLANNING**

**COURSE SYLLABUS  
ARPL 636: Design Process and Methods**

Fall Semester 2017  
*Graduate offering*

**Course website:** <http://juliobermudez.com/courses/636/index.htm>

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**Credit Hours:** 3

**Prerequisites:** *graduate standing*

**Classroom:** *CROUGH B-016 (old library)*

**Days and hours of class meetings:** *MW 11:10am-12:25pm*

**Instructors contact information:**

Professor **Julio Bermudez**, Ph.D.

Office: Crough 206 — Phone: (202) 319-5755 — email: [bermudez@cua.edu](mailto:bermudez@cua.edu)

Office Hours: by appointment (contact instructor)

TAs: Anh-Tu Nguyen — email: [85nguyen@cua.edu](mailto:85nguyen@cua.edu)

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Consulting appointment: contact TA directly

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**Course Description**

This class investigates *architectural design processes and methods* through comparative analyses, both theoretically and practically. The overall premise is that every design process occurs within a general methodology that (pre)determines its ideology, universe and mode of inquiry (i.e., questions, strategies and tactics), knowledge base, representation techniques, goals, and expectations. During the first part of the semester, the focus is on understanding the fundamental nature of the design process whereas the second (and longer) part is devoted to study a variety of architectural design methods. In addition to readings and lectures geared to establish a conceptual framework, the course uses short, hands-on assignments and case-studies. A final project asks students to demonstrate the insights collected throughout the semester.

**Instructional Methods**

The course uses a variety of pedagogic tools to accomplish its goals, namely (1) lectures that introduce and frame the realm of study, reflection and practice; (2) design exercises that provide hands-on learning of essential concepts, principles and methods; (3) research assignments that demand discovery, analysis, and synthesis of relevant written and design material using a comparative framework; and (4) application tasks that critically use what has been learned to illuminate student's own design process/methods. Feedback and evaluation will take the form of desk criticism (individual and group), informal and formal class pin-ups/reviews and discussions, individual interviews, and one final public jury. Students will work both individually and in teams depending on the particular assignment and educational goals.

**Required & Recommended Texts**

There is not one book required for the class. We will depend on a variety of sources. However, overall, the following books and articles will be used throughout the semester as general guides. Other texts will

be necessary during learning units [2] and [3] of the semester and depend on the research assignments that each student team gets. Papers/Books marked in **bold** are particularly relevant to this class.

Antoniades, Anthony. *Poetics of Architecture: Theory of Design*. New York: Van Nostrand Reinhold, 1992

**Bermudez, Julio. "On Paradigms & Avant Garde," *Design Methods* 30:3 (1996), pp.2368-2396**

Ching, Francis. *Architecture: Form, Space, and Order*. New York: Wiley, 2007

Clark, Roger and Pause, Michael. *Precedents in Architecture: Analytic Diagrams, Formative Ideas, and Partis*. New York: Wiley, 2012

**Cross, Nigel. "Designerly ways of knowing," *Design Studies* 3:4 (1982) pp. 221-227**

Cross, Nigel. *Design Thinking*. New York: Bloomsbury Academic, 2016

Groat, Linda and Wang, David. *Architectural Research Methods*. Hoboken, NJ: Wiley, 2013

Jones, J. Christopher. *Design Methods: Seeds of Human Futures*. New York: Wiley, 1981

**Lawson, Bryan. *How Designers Think*. Burlingam, MA: Architectural Press, 2005.**

Lawson, Bryan. *What Designers Know*. Burlingam, MA: Architectural Press, 2004

Plowright, Philip. *Revealing Architectural Design: Methods, Frameworks and Tools*. New York: Routledge, 2014

Mallgrave, Harry Francies. *The Architect's Brain*. UK: Wiley-Blackwell, 2011

**Schön, Donald. *The Reflective Practitioner*. New York: Basic Books Inc., 1983**

**Zeisel, John. *Inquiry by Design*. New York: Norton & Company, 2006**

### **Other materials (readings, bibliography, web links and info, etc.)**

Please, refer to each particular assignment (to be handed-out separately) for specifics. See course website.

### **Libraries**

Specifically our school library (but also CUA Libraries at large) offers a wide range of resources and services, including databases, online journals, etc. FAQs are on the [main web site](#). For assistance on papers and assignments, consult the [research guides](#) or schedule an appointment with a [subject librarian](#).

### **Course Goals & Pedagogy**

Arguably, the most important thing a student will take from their architectural education, is the toolbox allowing them to approach, think, critique, communicate, and make architecture. In other words, a battery of design methods and processes. Hence, the thrust of studios and other classes centers in teaching techniques, tactics, strategies, and approaches that advance such learning. While understandable, this noble intention must be balanced with a simultaneous development of reflection-in-action, that is, one's ability to monitor and manage one's own design approach/process/method prior, during, and at the end of a given task.

The goal of this graduate course is exactly that: to bring the necessary attention, knowledge, and understanding to cultivate students' awareness and skills to (critically) recognize what/why/when/how to use a particular approach, method and process. In order to accomplish such objective, the class makes use of the rich architectural tradition, in practice and scholarship, addressing design methods and processes. More specifically, the course is broken down into the following three learning units:

**Unit [ 1 ] (2.5 weeks): *Design Process Fundamentals*** introduces the essential nature, function, conditions, psychology, models, and paradigms of the design process. This unit establishes the

course's general theoretical approach and knowledge-base. Students begin to test what they are learning through two hands-on design assignments. Work is done individually.

**Unit [ 2 ] (6.5 weeks):** *Design Methods Fundamentals* presents and studies the most commonly employed methods of architectural design, focusing on their strengths, weaknesses, ideology, attitudes, etc. This is done within a comparative framework that enables critical and insightful comparisons. Work is done in teams.

**Unit [ 3 ] (6 weeks):** *Application*. Students engage in the investigation, analysis, and introspection of their own design processes and methods applying what they have learned in the course to observe and critique the work they have done thus far in their architectural studies. Individual effort.

## Goals for Student Learning

At the conclusion of the course, the student will be able to:

- understand the fundamental characteristics of design as a process and method of inquiry/making with its own nature, purpose/functions, psychology, logic, and traditions (i.e., and as different from sciences and engineering, the arts and the humanities);
- understand the different theories explaining the design process and how they apply to architectural design;
- discern and articulate the differences between process, tactics, strategy, method, methodology, goal-objective, paradigm, and ideology;
- find, interpret, analyze, synthesize, and utilize relevant information to a given research task;
- realize the variety of methods available to approach architectural problems
- understand and explain how each one presents a 'biased' set of values, ideas, expectations, and techniques with various strengths and weaknesses;
- understand, develop, and use comparative criticism/analysis to study, interpret, organize, and present diverse processes and methods;
- deploy appropriate written, oral and graphic means to present gained insights;
- develop, negotiate, and utilize rules of interactions to successfully cooperate with others.
- apply class knowledge and skills to study own design processes and methods.
- develop and demonstrate metacognitive skills regarding own design processes and methods;
- understand and apply subjective-phenomenological (1<sup>st</sup> Person), intersubjective-social (2<sup>nd</sup> Person), objective-empirical (3<sup>rd</sup> person), and integrative-combined/comparative (4<sup>th</sup> Person) approaches in architectural research and thinking;

For more specific learning outcomes, please refer to each particular assignment. See course webpage.

## Course Requirements

There are four Assignments covering the Learning Units described above. The specifics for each one will be defined at the time a particular assignment is introduced. All the projects must be completed and passed in order to pass the course. Please, refer to each hand-out assignment for the specifics of each one.

## Expectations and policies

### Academic Integrity

Academic integrity is not merely avoiding plagiarism or cheating, but it certainly includes those things. More than anything, having academic integrity means taking responsibility for your work, your ideas, and your effort, and giving credit to others for their work, ideas and effort. If you submit work that is not your own – whatever the assignment – I have a responsibility to hold you

accountable for that action. I also have a responsibility to treat you with respect and dignity while doing so.

The following sanctions are presented in the University procedures related to Student Academic Dishonesty: *“The presumed sanction for undergraduate students for academic dishonesty will be failure for the course. There may be circumstances, however, where, perhaps because of an undergraduate student’s past record, a more serious sanction, such as suspension or expulsion, would be appropriate. In the context of graduate studies, the expectations for academic honesty are greater, and therefore the presumed sanction for dishonesty is likely to be more severe, e.g., expulsion. ...In the more unusual case, mitigating circumstances may exist that would warrant a lesser sanction than the presumed sanction.”*

At times, we may ask you to do group work for an in-class presentation or group project. For that *specific* assignment, you are allowed to share material, ideas and information; however, for any related work that is to be submitted on an individual basis, I expect your submission to be your own in its entirety.

For more information about what academic integrity means at CUA, including your responsibilities and rights, visit <http://integrity.cua.edu>.

### **Supplemental Expectations and Policies**

See School of Architecture & Planning Policies (link in course website).

### **Assessment**

The weight of each of the five Learning Unit will be broken down as follows:

Unit [ 1 ] :	<i>Design Process Fundamentals (individual work)</i>	10%
Unit [ 2 ] :	<i>Design Methods Fundamentals (team work)</i>	40%
Unit [ 3 ] :	<i>Application (individual work)</i>	40%
Total		90%

While projects will be primarily evaluated using the review/jury system and focused on a set of criteria (different for each phase/project), the faculty will also consider the level of inquiry (breath, depth, method, logic and creativity) that the student acquired in the process. Other pedagogic dimensions such as student growth (i.e., improvements in skills, knowledge, attitude, questioning, etc.) as well as their participation, collaborative practice, insights gained in Exercise 0 (Book Review), citizenship and/or committed effort throughout the semester will count toward the **remaining 10% of the grade**.

### **University grades**

The University grading system for graduate students is available at

<http://policies.cua.edu/academicgrad//gradesfull.cfm#iii>

Reports of grades in courses are available at the end of each term on <http://cardinalstation.cua.edu> .

### **Course Schedule**

See attached Calendar or visit course website. However, some modifications are likely depending on how the class progresses. Students are expected to review the updated schedule at regular intervals.

## Bibliography

See attached and each particular assignment (or visit course website).

## Accommodations of students with disabilities

Any student who feels s/he may need an accommodation based on the impact of a disability should contact the Office of Disability Support Services. Please contact Disability Support Services by email at [dss.cua.edu](mailto:dss.cua.edu), or call 202-319-5211 to make an appointment to discuss reasonable accommodations. **DSS is located in PRYZ 127.**

## Academic Support Services

The university's primary academic support resources are located on the 2<sup>nd</sup> floor of Mullen Library, McMahon Hall, and at the Pryzbyla Center. These affiliated offices and services include:

**The Undergraduate Advising Center (UAC)** offers guidance to all undergraduates, especially first-year students, as they move toward their academic goals. The UAC is located in B 10 McMahon Hall. **Office hours are Monday through Friday from 9:00am to 5:00pm.**  
**Phone:** (202) 319-5545 **Email:** [cua-advising@cua.edu](mailto:cua-advising@cua.edu) **Web:** [advising.cua.edu](http://advising.cua.edu)

**The Center for Academic Success (CAS)** provides academic support services for all students through a broad base of programs and services, including Tutoring Services, Workshops, Individual Skills Meetings, Peer Mentoring, and more. CAS is located at Mullen Library Second Floor.  
**Phone:** (202) 319-5655 **Email:** [cua-academicssuccess@cua.edu](mailto:cua-academicssuccess@cua.edu) **Web:** [success.cua.edu](http://success.cua.edu)

**The Writing Center** is an excellent resource for any student. The Writing Center is committed to supporting the writing needs of students at all stages of the writing process. If, at any point in the semester, you feel that you are struggling to draft, revise, or properly reference sources in a writing assignment, make an appointment at <http://english.cua.edu/wc>; we also welcome walk-in appointments at the Writing Center, which is located in 219 Mullen Library.  
**Phone:** (202) 319-4286 **Email:** [cua-writingcenter@cua.edu](mailto:cua-writingcenter@cua.edu) **Web:** [english.cua.edu/wc/](http://english.cua.edu/wc/)

**The Math Center** is staffed with Math Faculty and Tutors who are trained to assist students struggling in areas ranging from the basics to complex problems in calculus and statistics. Any student who feels he or she may need assistance in this or any other math class is welcome to visit the Math Center on Monday through Thursday between the hours of 4:00 and 10:00pm. No appointment is necessary and services are absolutely free. The Math Center is located at Mullen Library Second Floor.  
**Phone:** (202) 319-5655 **Email:** [cua-academicssuccess@cua.edu](mailto:cua-academicssuccess@cua.edu)

**The Office of Disability Support Services** provides reasonable accommodations for the classroom and testing environment for students with documented disabilities. DSS is located in Pryz 127. **Office hours are Monday, Wednesday, and Friday 8:00am-5:00pm, and Tuesday and Thursday 8:00am -6:30pm.** **Phone:** (202) 319-5211 **Email:** [cua-dss@cua.edu](mailto:cua-dss@cua.edu) **Web:** [dss.cua.edu](http://dss.cua.edu)

**The Counseling Center** provides free individual and group counseling services, psychiatric consultation, alternative testing, and emergency services to CUA students. In addition, we provide consultation services and outreach programs to the CUA community. Appointments can be scheduled in person in 127 O'Boyle Hall, or by phone.  
**Phone:** (202) 319-5765. **Web:** [counseling.cua.edu](http://counseling.cua.edu)

## School of Architecture & Planning Policies *(attachment to syllabus)*

### Achievement

Grades on exams and assignments are based on the degree to which each student has achieved course learning objectives. They do not depend on how hard a student worked, the student's degree of self-satisfaction, or the number of other things a student was trying to juggle during the same semester.

### Assignments

In general, no "make up" or "extra credit" projects will be allowed. Students are urged to do a good job the first time. Incomplete work will be graded as is. Limited extensions of time will be allowed only when the Dean approves a request to assign a grade of "Incomplete" (see "Attendance", below).

Papers are expected to be free of spelling and grammatical errors. With computerized spell-check and grammar-check, this is particularly easy. Professionalism counts.

Lost work, crashed computers, etc., will not be accepted as excuses. Back up files and keep hard copies.

### Attendance

As noted in the Academic Regulations for Undergraduates:

***XII. Attendance at Class:** Good scholarship requires the presence of students at all class and laboratory meetings. The responsibility for prompt and regular class attendance rests upon the individual student. If, for any reason, a student is absent too frequently from class, it may become impossible for that student to receive a passing grade. Authority for excusing absences rests with the teacher who may request that the student obtain authentication of absences considered unavoidable.*

Those who arrive late or depart early may be counted as absent. Teachers may give failing grades to students with too many unexcused absences. Absences are excused at the discretion of the teacher.

Students are allowed time to participate in sports teams so long as they complete course requirements.

Students who are sick are asked to stay away so that they can recover and so that they don't infect others. And students facing personal or family crises are expected to need time to manage them. But in both cases, students need to manage their absences through communication and balance.

- For foreseeable absences (upcoming sports team event, religious holiday, funeral, etc.): Please notify teachers ahead of time and submit documentation if requested explaining the absence.
- For unforeseeable absences (sickness, injury, or family emergency): Please notify, or have someone else notify, teachers as soon as possible and generally no later than the end of the day of the absence. Note that unforeseen events caused by lack of planning do not justify absence.

Students must work out with teachers how they will achieve the learning objectives of the missed session(s). When the absences occur before the deadline to withdraw from a course and the teacher feels that there is no practical way to achieve the objectives, the student should withdraw. If he or she does not, the teacher has an obligation to give the student a grade of F for failing to achieve the learning objectives of the course. This is simply an acknowledgement of the infeasibility of making up the missed session(s). When the absences occur after the deadline for withdrawal, the student should request the dean to allow a grade of "Incomplete" (a form for that is posted to the school's website) to be permitted additional time to finish the work.

## **Grading**

Letter grades for architecture and planning majors for courses in those majors will be assigned by the following scale:

**A:** Exceeded Learning Objectives (Grades of A and A- allow for some nuance)

**B:** Fully Met Learning Objectives (Grades of B+, B, and B- allow for some nuance)

**C:** Partially Met Learning Objectives (Grades of C+, C, and for undergrads only, C-, allow for some nuance)

**D:** Failed to Meet Learning Objectives, even though some or even a significant amount of work was done. (Available to undergraduates only; D+ and D- grades are not available even to them.)

**F:** Failed to Meet Learning Objectives by a significant margin

Students receiving grades of **D** or **F** will be required to repeat the course until a grade of at least **C-** is earned. Students may repeat a passed course with all grades calculated into the GPA. Only failed grades may be appealed, and only when the failure was for reasons unrelated to academic performance.

## **Lecture Series Attendance**

Attendance at the school's Lecture Series events is required. No undergraduate classes are scheduled in our school at that time, so students should not have any conflicts. Lecture dates can be found on the school website. Take sketchbooks to the lectures to make drawn as well as written notes.

## **School Closure**

In the event of unforeseen school closures, students are expected to maintain their progress in courses by such means as completing assigned readings and completing and submitting assigned work electronically when due. See teachers for supplemental procedures applicable to specific courses.

The Provost will determine any changes in the academic calendar and usually will notify the entire campus community by e-mail.