

UNIVERSITY OF MARYLAND
School of Architecture, Planning and Preservation

Fall 2011

ARCH 170:

Introduction to the Built Environment

Professor: Luis Diego Quiros
ldquiros@umd.edu
Office Hours: Monday: 11:00 am – 12:00 noon
1228 ARCH

**Administrative
Teaching Assistant:** XXXXXX

Teaching Assistants: XXXXXX
XXXXXX
XXXXXX
XXXXXX
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XXXXXX

Lectures: Monday: 10:00 am – 10:50 am
Wednesday: 10:00 am – 10:50 am

Location: Architecture Building Auditorium

Recitation: Once a week/section

Location: Check time and place for your section

“The strength of a good design lies in ourselves and in our ability
to perceive the world with emotion and reason”

Peter Zumthor, Thinking Architecture

Course Description: ARCH 170: Introduction to The Built Environment is a CORE introductory course to conceptual, perceptual, behavioral and technical aspects of environmental experience, understanding and design. It involves and teaches methods of analysis, problem-solving, and project implementation.

It's content includes an INTRODUCTION to the Built Environment as human habitat, the ecological relationships between people and environment and the practical and spiritual human needs the environment addresses. It also includes an introduction to the THEORY of understanding and designing of the Built Environment and to the TERMINOLOGY and TECHNOLOGY related to it. METHODS of graphic communication and design process, together with an overview of the relationship between ARCHITECTURE and THE CITY are also part of the subject matter of this class.

In this course, we will explore questions as:
What is the Built Environment?
What role does it play in everyone's life?
How are ideas and significance embedded in the world we make?

Specifically, this course is intended to expose you to:

- _ The theoretical basis of the design disciplines.
- _ The vocabulary they use.
- _ The methods and procedures on which they rely.
- _ The human significance of the built environment.
- _ The relationship between cultures, values, technology and the built environment
- _ **The importance of sustainable practices in relation the future of our built and natural environments.**

Method of

Instruction: Lectures and recitations are held twice and once a week respectively. Attendance to lectures is expected and to recitations is mandatory. Assigned readings provide in-depth discussion and illustration of lecture and recitation topics. Four assignments, three exams, and possible extra credits are part of the course. You should keep your notes on an 8.5" x 11" notebook – it will be part of your grade.

Lectures and recitation sessions (discussions) are supplemented by assignments and readings. Readings provide in-depth discussion and illustration of lecture topics; however neither readings nor the website are intended to serve in place of attendance to lectures.

Lectures: Unlike lectures in most other areas, those in architecture rely heavily upon visual images to illustrate the topics discussed. For this reason, your course notes should include diagrams or sketches of the images presented on the screen. Material covered in lectures, the website, readings, and recitation sections will complement one another but may NOT always overlap. You are responsible for ALL material covered in any of these venues/media - guest lecturers included.

Recitation Sessions: Attendance to recitation sessions is mandatory. Recitations are conducted by a teaching assistant. You are expected to participate in reviewing and discussing of the material presented in lectures and learned from readings, and of all the assignments.

Assignments: There are four assignments that will require you to think, write, draw, analyze, design, and take a field trip to Washington. Assignments will be graded by your TA according to standardized criteria. In some cases, discussion sessions will be dedicated to developing and discussing your solutions.

Exams: Exams are cumulative; that is, they include all topics discussed in lectures and covered in assignments up to the day of the exam. Exams consist of true/false, multiple choice, short-answer, and essay questions. All exams are closed-books. There are three exams: two hour-long tests during the semester at the time of the regularly scheduled lecture (hourly exams), and one two-hour long cumulative test at the conclusion of the semester (final exam). Consult the Course Calendar and the Schedule of Classes for exam dates for your section.

**Required Books
And Readings:**

Ching, Francis D.K., Architecture: Form Space and Order, Van Nostrand Reinhold. Editions 2 or 3.
Supplemental Readings for Architecture 170, Kendall/Hunt Publishing Company.

Online information: There is both a course website and ELMS course space. We use each venue to post different material.

Course Website: Notes and other general information (without dates) are available on the ARCH 170 Web Site:
<http://arch.umd.edu/Faculty/Eisenbach/Courses/ARCH170/>

ELMS: When you login to ELMS, you will find two different links for this course:

1. For general course and lecture materials such as calendars, syllabus, assignments, etc. that CHANGE from semester to semester.
2. For your specific discussion section where you can check your grades, upload material for your TA as requested and communicate with your classmates or TA.

**The (Not So)
Fine Print:**

Attendance: **Attendance to lectures is expected.** As mentioned above, neither textbook nor the Web is a substitute for attendance. Your best strategy, therefore, is to come to class regularly, listen carefully, and participate in the discussion. As mentioned above, attendance to recitation sessions is mandatory and will be recorded. Each unexcused absence from a discussion session will result in one letter grade penalty on the assignment being worked on at the time. Unannounced in-class extra credit assignments will be one vehicle to take attendance in lecture.

Absences:

Absences will be excused only in cases of personal illness or emergency. Emergency means a circumstance beyond a student's reasonable control. In order for an absence to be excused, you must present a written verification of illness (download "Medical Doc Form" from the ARCH 170 Homepage) or other appropriate written evidence of an emergency. Students who may be **absent because of religious observances must inform the instructor of such absences in advance no later than September 15, 2011. You will be allowed to make up an exam only in the case of excused absences. Malfunctioning clocks are not considered a legitimate excuse for absence from an exam. Chronic tardiness will be considered as unexcused absence.** Please note that the final day to drop a course without a "w" mark is February 4, 2011 and the last day to drop the course with a "w" mark is April 8, 2011.

Academic Integrity & Honor Pledge:

While you are encouraged to study and visit project locations with friends, we expect you to work individually on any assignment. This means that the entire assignment, including drafts, roughs, etc, must be executed solely by you. The work you present must be your own (not a copy of someone else's paper or drawing). If you work at a shared computer, you must make sure that your work is not available to others using the same computer. By the same token, you must not use in your assignment any part of another student's computer files or output. The University of Maryland, College Park has a nationally recognized Code of Academic Integrity, administered by the Student Honor Council. This Code sets standards for academic integrity at Maryland for all undergraduate and graduate students. As a student you are responsible for upholding these standards for this course. It is very important for you to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism. For a complete discussion of Academic Integrity consult the Undergraduate Catalogue or go to:
<http://www.studenthonorcouncil.umd.edu/whatis.html>.

Accommodations for Students with Disabilities:

The University is legally obligated to provide appropriate accommodations for students with documented disabilities. Students who seek special accommodations due to disabilities must first set up an appointment with Dr. Jo Ann Hutchinson or her staff at the Disability Support Services (DSS) in the Counseling Center, 314-7682. Once the DSS representative has made a determination of the appropriate accommodations they will provide an accommodation form to distribute to instructors. Students should both present these forms at the beginning of the semester and make an appointment to discuss arrangements. If the arrangements involve modifications of testing procedures, students will present a test authorization form to instructor **1 week** before an upcoming exam. The instructor will complete and deliver this form along with the test to the DSS office.

Due Dates:

Assignments are due at the date and time specified in the assignment sheets. No late assignments will be accepted for any reason, except in the case of excused absences (see above). If an assignment is due on a religious holiday you observe, you will be given one extra day to complete the assignment for each day that holiday lasts, provided you have notified the instructor as stated above. All work must be complete; incompleteness will result in downgrading. Any project not submitted or exam not taken will receive a failing grade, except in the case of excused absences.

Contact:

Your first contact person in case of questions, observations, problems, or suggestions is your Teaching Assistant. If you cannot resolve an issue with your TA, if you have a question that you think should be answered by the course instructors, or if the question involves grades and you have already discussed this with your TA, please contact Professor Quiros who is responsible for the course record-keeping. The best way to contact the instructor is by e-mail: ldquiros@umd.edu. Please assist by putting ARCH 170 and the question in the subject line. I welcome student's questions or comments. If you wish to speak with me in person outside of lecture, please make an appointment with the office staff by calling (301) 405-8000.

Grades:

Your final grade for the course will be calculated as follows:

Assignments	40 %	# 1 = 4% / # 2 = 6% / # 3 = 12% / # 4 = 18%
Hourly Exams	25 %	12.5% each
Final Exam	25 %	
Notebook	10%	
Final Grade	100%	

Be reminded of the grading system policies:

A+, A, A- denotes excellent mastery of the subject and outstanding scholarship.

B+, B, B- denotes good mastery of the subject and good scholarship.

C+, C, C- denotes acceptable mastery of the subject and the usual achievement expected.

D+, D, D- denotes borderline understanding of the subject. These grades denote marginal performance, and they do not represent satisfactory progress toward a degree.

F denotes failure to understand the subject and unsatisfactory performance.

XF - denotes failure due to academic dishonesty.

S - is used to denote satisfactory performance by a student in progressing thesis projects, orientation courses, practice teaching etc.

W - indicates withdrawal from a course in which the student was enrolled at the end of the schedule adjustment period.

For the purpose of calculating grades for assignments & exams, the following minimum scores correspond to letter grades:

97 A+	84 B	70 C-	less than 60 F
94 A	80 B-	67 D+	
90 A-	77 C+	63 D	
87 B+	74 C	60 D-	

Course Evaluations:

There will be two evaluations for this course, one for the Instructor and one for your Teaching Assistant. Your feedback is appreciated, it helps us improve the course and build on our successes. You can go directly to the website (www.courseevalum.umd.edu) to complete your evaluations. You will be alerted via their official University e-mail account about these dates and provided more information closer to that time.

Need Help?

Don't hesitate to get in touch with your TA or the course instructors. Is this your first semester away from home and you find it hard to adjust to a new environment? Are you confused about any aspects of the course? Do you have special needs you'd like to communicate? Do you have a learning difficulty, physical disability, or social concern? In particular, let us know if you need special arrangements for extra time or special accommodations when taking exams. If you do, go to the DSS office in the Counseling Center, Shoemaker Hall and get the necessary authorization form. Then **personally** give professor Quiros the form **at least one week prior** to the exam date; do **not** trust the office mailbox!

If you would like **free assistance with writing assignments**, go to the Writing Center, Room 1205 Tawes Hall or go to:
<http://www.english.umd.edu/academics/writingcenter/undergraduate/hours>

Sustainability & the Built Environment:

We believe that sustainability is a big part of the built environment. We encourage you to adopt sustainable practices during this course. For further information visit the Campus Sustainability at the University of Maryland:

www.sustainability.umd.edu/index.php?p=sustain_office.

Before you start the course and if you want to know your footprint on the planet, please go to the following link and fill the Footprint Calculator:

<http://www.footprintnetwork.org/en/index.php/GFN/page/calculators/>

For ways in which you can be “greener” – go to:

<http://www.och.umd.edu/pdf/Living%20Green%20Off-Campus.pdf>

**Required
Bibliography:**

Ching, Francis D.K., Architecture: Form Space and Order, Van Nostrand Reinhold. Editions 2 OR 3.
Supplemental Readings for Architecture 170, Kendall/Hunt Publishing Company.

**Additional
Optional
Resources:**

Bartuska, Tom J, The Built Environment: A Collaborative Inquiry Into Design and Planning
Zumthor, Peter: Thinking Architecture; Birkhäuser-Publishers.
Cuff, Dana, Architecture: The Story of Practice; MIT Press.
Lewis, Roger, Architect? A Candid Guide to the Profession; MIT Press.
Rybczynski, Witold, Home: The Short History of an Idea; Penguin Books.
Kostof, Spiro, The City Shaped; Bulfinch Press Little, Brown & Company.
Norberg-Schultz, Christian; Intentions in Architecture; MIT Press.

Books related to the topic of sustainability and design:

Rasmussen, Steen E., Experiencing Architecture, MIT Press.
Tidwell, Mike, The Ravaging Tide, UMD Freshman 2007 book.
McDonough, William and Braungart, Michael, Cradle to Cradle: Remaking the Way we Make Things
Benyus, Janine, BioMimicry: Innovation Inspired by Nature
McHarg, Ian, Design with Nature
Orr, David, Earth in Mind: On Education, Environment and the Human Prospect
Rudofsky, Bernard, “Architecture without Architects; A short history of non-pedigreed architecture”
Northwest Earth Institute, Discussion Course on Choices for Sustainable Living

Institutions and online resources:

USGBC: <http://www.usgbc.org/>
LEED: <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=1988>
National Center for Smart Growth Research & Education:
<http://www.smartgrowth.umd.edu/>
US Department of Energy Solar Decathlon: <http://www.solardecathlon.org/>
NBM Green Communities Exhibit:
<http://www.nbm.org/exhibitions-collections/exhibitions/green-community/green-community.html>
Northwest Earth Institute: www.nwei.org
Green Building Institute: <http://www.greenbuildinginstitute.org/>
Energy Star: <http://www.energystar.gov/>
United States Environment Protection Agency: <http://www.epa.gov/>

**Student
Performance
Criteria:**

The mission of the National Architectural Accrediting Board (NAAB – www.naab.org) is leadership in, and the establishment of, educational quality assurance standards to enhance the value, relevance, and effectiveness of the architectural profession. As part of the accreditation process, the NAAB evaluates student performance. It is imperative for the student to become familiar and perform a self-evaluation based on the criteria. At the conclusion of this course students will have addressed the following 2009 NAAB Student Performance Criteria:

Realm A: Critical Thinking and Representation:

Architects must have the ability to build abstract relationships and understand the impact of ideas based on research and analysis of multiple theoretical, social, political, economic, cultural and environmental contexts. This ability includes facility with the wider range of media used to think about architecture including writing, investigative skills, speaking, drawing and model making.

A. 1. Communication Skills: *Ability to* read, write, speak and listen effectively.

A. 2. Design Thinking Skills: *Ability to* raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.

A. 3. Visual Communication Skills: *Ability to* use appropriate representational media, such as traditional graphic and digital technology skills, to convey essential formal elements at each stage of the programming and design process.

A. 5. Investigative Skills: *Ability to* gather, assess, record, apply, and comparatively evaluate relevant information within architectural coursework and design processes.

A. 6. Fundamental Design Skills: *Ability to* effectively use basic architectural and environmental principles in design.

A. 8. Ordering Systems Skills: *Understanding of* the fundamentals of both natural and formal ordering systems and the capacity of each to inform two- and three-dimensional design.

A. 9. Historical Traditions and Global Culture: *Understanding of* parallel and divergent canons and traditions of architecture, landscape and urban design including examples of indigenous, vernacular, local, regional, national settings from the Eastern, Western, Northern, and Southern hemispheres in terms of their climatic, ecological, technological, socioeconomic, public health, and cultural factors.

A. 10. Cultural Diversity: *Understanding of* the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the implication of this diversity on the societal roles and responsibilities of architects.

Realm B: Integrated Building Practices, Technical Skills and Knowledge: Architects are called upon to comprehend the technical aspects of design, systems and materials, and be able to apply that comprehension to their services. Additionally they must appreciate their role in the implementation of design decisions, and the impact of such decisions on the environment.

B. 4. Site Design: *Ability to* respond to site characteristics such as soil, topography, vegetation, and watershed in the development of a project design.

B. 9. Structural Systems: *Understanding of* the basic principles of structural behavior in withstanding gravity and lateral forces and the evolution, range, and appropriate application of contemporary structural systems.

Realm C: Leadership and Practice:

Architects need to manage, advocate, and act legally, ethically and critically for the good of the client, society and the public. This includes collaboration, business, and leadership skills.

C. 1. Collaboration: *Ability to* work in collaboration with others and in multidisciplinary teams to successfully complete design projects.

C. 2. Human Behavior: *Understanding of* the relationship between human behavior, the natural environment and the design of the built environment.

WEEK	DATE	LECTURES - SPRING 2011	ASSIGNMENT	Recitation	Readings
1	Date	Introduction			
	Date	The Built Environment (and the importance of Sustainability)			Ching
	RECITATION		1	Assignment 1 Issued	
2	Date	Design Communication			Supplemental Readings
	Date	Theory I			
	RECITATION			Discussion / Notebook Review	
3	Date	Theory II			
	Date	Theory III			
	RECITATION		2	Assignment 1 Due / Assignment 2 Issued	
4	Date	Theory IV			
	Date	Sustainability + Green Architecture			
	RECITATION			Discussion + Pin Up	
5	Date	Semiotics			Ching
	Date	Form: Space, Ordering Strategies			Supplemental Readings
	RECITATION		3	Assignment 2 Due / Assignment 3 Issued	
6	Date	Form: Space, Ordering Strategies			Ching
	Date	EXAM 1			
	RECITATION			Notebook Review	
7	Date	Form			Ching
	Date	Form			Ching
	RECITATION			Discussion + Pin Up 1	
8	Date	Form			Ching
	Date	Site/ Climate Analysis			
	RECITATION			Discussion + Pin Up 2	
Spring Break	MON	Mar 21			
	WED	Mar 23			
	REC				
9	Date	Technology			
	Date	Technology			
	RECITATION		4	Assignment 3 Due / Assignment 4 Issued	
10	Date	Function			Ching
	Date	Function			
	RECITATION			Assignment 4 - Step 1 / Review (Night)	
11	Date	EXAM 2			
	Date	Design Process			
	RECITATION			Assignment 4 - Step 2	
12	Date	Design Process			Supplemental Readings
	Date	Design Process + Sustainable Design Strategies			
	RECITATION			Assignment 4 - Step 3	
13	Date	Cities			Supplemental Readings
	Date	Cities			
	RECITATION			Assignment 4 Due	
14	Date	Cities			Supplemental Readings
	Date	Cities + Smart Growth + New Urbanism + Landscape Urbanism			
	RECITATION				
15	Date	Holistic Approach to Design			
	Date	No classes			
	RECITATION				
16	Date	No classes			
	Date	TENTATIVE - FINAL EXAM DATE AND TIME (8:00 am - 10:00 am)			
		To be announced as soon as UMD's Office of the Registrar Classroom Scheduling and Space Management announces dates for final exams			