

Times: Class meets on Thursdays from 5:00 to 7:30 in ARCB 209

Instructor: Michael OBrien 326 Langford A, mjobrien@tamu.edu office hours by appointment.

Course Title: ARCH 489 Making and Architecture. (3-0). Credit 3. A study of significant works of architecture and the materials, means and methods used in their making.

Prerequisite(s): Lower division classification (ENDS, ENDL) in the BED Architectural Studies Option.

Introduction: Architectural designs ultimately become translated from idea to form and again from form to materials to be made-that is, constructed. As ideas and forms have become more expressive and less conventional, they frequently call upon non-traditional, innovate materials, systems, construction processes and project delivery forms to maintain a high degree of conceptual clarity in the constructed work.

Across history this has been the case, from the Hall of Sassanian Kings through the latest works by Daniel Liebeskind, Toyo Ito, and Frank Gehry, architects who embrace bold advances in form and space similarly embrace innovations to achieve these in built works.

This class will study the roles of materials, construction methods and project delivery methods used to achieve these innovative structures.

Objectives: Upon completing this course the student will be able to:

- Identify key strategies for structuring, materials and project delivery methods as utilized in contemporary and historical precedents of innovative building forms.
- Understand alternative methods of structuring innovative forms towards the goal of constructing the form.
- Be able to recommend structuring strategies, materials systems, and collaborative teams towards constructing buildings with innovative forms.

**Course topics
And calendar:**

Topics for the course are listed below. Other material may be presented depending on class interaction and problem contexts.

- Wk 1 Innovation and interrelationships: the cultural, material, and process interrelationship diagram
- Wk 2&3 Timber
 - Heavy
 - Cribbed Kiva's
 - Tradition and Timber Framing
 - Contemporary Timber – Bohlin, Cutler, Piano
 - Light
 - The Swiss Sound Box & the Grain Elevators of the Midwest
 - Renzo Piano, E. Fay Jones, Peter Zumthor,
- Wk 4&5 Masonry
 - Stone
 - Cathedral Building
 - Peter Zumthor, Thermal Baths at Vals

- Brick
 - De Klerk & the Amsterdam School
 - Hall of Sassanian Kings
 - Block
 - Louis Kahn Tribune Review, Trenton Bath House
 - Mario Botta, Ticino Houses
- Wk 6&7 Concrete
 - Sitecast
 - Ronchamp
 - Nervi
 - Malliart & Morandi
 - Santiago Callatrava TGV Station Lyon, Milwaukee Art Museum
 - Precast
 - Louis Kahn, Richards Medical Research Building, Richard Rogers, Lloyds of London
 - Tiltup
 - Steven Holl, Chapel of St. Ignatius
- Wk 8&9 Metal Structures
 - Iron
 - Bartholdi, The Statue of Liberty
 - Gustave Eiffel, Garabit Viaduct
 - The Bridge over the Firth of Forth
 - Hot rolled & HSS
 - Liebeskind, DAM, Toronto,
 - Gehry, Seattle Music
 - Stout, Blue Ridge Art Museum
 - Foster, Charing
- Wk 10&11 Glass
 - Shells,
 - The glass house at Kew & Bicton
 - Mullions,
 - Bates & Davidson, Federation Square, Melbourne
 - KPF 333 Wacker
 - Nouvel Arab Insitute
 - Structural
 - Frank Israel's windows
 - Peter Bohlin, The Apple Store NY
 - Peter Rice, The Museum of Science and Industry, La Villette
- Wk 12-15 Skins and Surfaces
 - FOA Yokohama, Turkey
 - Herzog & DeMueron, Walker Art Museum, The Basel Copper Boxes
 - Peter Zumthor, Kunsthaus at Bregenz
 - Nicholas Grimshaw, Space Center
 - Jean Nouvel, The Arab Institute

Projects:

**Project 1.
Your top 10....**

Issued: Week one

Due: Week three

Assemble a list of your top ten for each of the following element categories of architecture. Provide an image at least 3"x3" for each as well as a caption explaining what building, architect, and location where each element is found.

- a. Your top 10 walls
- b. Your top 10 columns
- c. Your top 10 stairs
- d. Your top 10 roofs
- e. Your top 10 floors

Your top tens should be presented on one poster plotted out, and on five powerpoint slides (one per element).

**Project 2.
Describing the top tens.**

Issued: Week three

First draft due: Week four

Final draft due: week 7

For each of your top ten elements listed above, describe in words

- The elements shape and form
- The elements material
- The elements character (refined, coarse, heavy, light)
- The elements influence on space
- The way the light interacts with the element

Your description of the top tens should be five-to-seven-pages long when double-spaced using 1" margins and 12 point font. Footnote key assertions, key ideas, and support for your conclusions.

Project 3.
Critiquing the top tens

Issued: Week 7

First draft due: Week 9

Final draft due: 13

For each of your five top ten element categories listed above, critique one element in your list by:

- Comparing the element to others in the same element category
- Comparing the element to other elements in different element categories, but having something in common (i.e. material, building type, construction method, form...)
- Conclude the critique by proposing the next steps to be made in the development of the element (i.e. the future of the glass column, the future of the stone wall.... Support your proposals with your observations about the element)

Your paper should be four-to-six-pages long when double-spaced using 1" margins and 12 point font.

Weighting

Project 1	Graphic quality of reproductions, page layout, 15%
Project 2	First draft accuracy, clarity, citations, and completeness 15%
	Your peer review comments, completeness, insight, helpfulness 15%
	Final draft 15%
Project 3	First draft accuracy, clarity, citations, and completeness 20%
	Final draft 20%

Required Text: Architecture Form Space Order, Francis Ching, Wiley.

Suggested Text: Details of Modern Architecture V.2, Edward Ford, MIT Press

Detail Magazine, WWW.Detail.De

Academic Integrity Statement and Policy

All work and conduct related to this class is governed by the Aggie Honor Code, <http://www.tamu.edu/aggiehonor>.

“An Aggie does not lie, cheat or steal, or tolerate those who do.”

Statements on attendance:

The university views class attendance as an individual student responsibility. Students are expected to attend class and to complete all assignments. Instructors are expected to give adequate notice of the dates on which major tests will be given and assignments will be due.

This information should be provided on the course syllabus, which should be distributed at the first class meeting. Graduate students are expected to attend all examinations required by departments or advisory committees as scheduled formally.

Students who are requesting an excused absence are expected to uphold the Aggie Honor Code and Student Conduct Code (See Rule 24).

Excused Absences

7.1 The student is responsible for providing satisfactory evidence to the instructor to substantiate the reason for absence. Among the reasons absences are considered excused by the university are the following:

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7.1.1 Participation in an activity appearing on the university authorized activity list. (see List of Authorized and Sponsored Activities <http://studentactivities.tamu.edu/online/sponsauth/>)

7.1.2 Death or major illness in a student's immediate family. Immediate family may include: mother, father, sister, brother, grandparents, spouse, child, spouse's child, spouse's parents, spouse's grandparents, stepmother, step-father, step-sister, step-brother, step-grandparents, grandchild, step-grandchild, legal guardian, and others as deemed appropriate by faculty member or student's academic dean.

7.1.3 Illness of a dependent family member.

7.1.4 Participation in legal proceedings or administrative procedures that require a student's presence.

7.1.5 Religious holy day. (See Appendix IV. <http://studentrules.tamu.edu/append4.htm>)

7.1.6 Injury or Illness that is too severe or contagious for the student to attend class.

7.1.6.1 Injury or illness of three or more days. For injury or illness that requires a student to be absent from classes for three or more business days (to include classes on Saturday), the student should obtain a medical confirmation note from his or her medical provider. The Student Health Center or an off-campus medical professional can provide a medical confirmation note only if medical professionals are involved in the medical care of the student. The medical confirmation note must contain the date and time of the illness and medical professional's confirmation of needed absence.

7.1.6.2 Injury or illness less than three days. Faculty members may require confirmation of student injury or illness that is serious enough for a student to be absent from class for a period less than three business days (to include classes on Saturday). At the discretion of the faculty member and/or academic department standard, as outlined in the course syllabus, illness confirmation may be obtained by one or both of the following methods:

Texas A&M University Explanatory Statement for Absence from Class form available at <http://attendance.tamu.edu>.

Confirmation of visit to a health care professional affirming date and

time of visit.

7.1.6.3 An absence for a non acute medical service does not constitute an excused absence.

7.1.7 Required participation in military duties.

Americans with Disabilities Act (ADA) Policy Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities.

Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit <http://disability.tamu.edu>.