

ARC 6146 Advanced Design Studio III

COLLEGE OF ARCHITECTURE - THE UNIVERSITY OF TEXAS AT SAN ANTONIO

Time and Place: MWF 1:00-4:50, Third Floor Monterey Building – Graduate Studio

“Architecture starts when you carefully put two bricks together, there it begins”



Ludwig Mies van der Rohe

Catalog Description: ARC 6146 Advanced Design Studio III
(1-10) 6 hours credit. Prerequisite: ARC 6126.

An advanced architectural design studio, which includes the integration of building materials, services, and systems, technical documentation and comprehensive design.

Sue Ann Pemberton, FAIA

Senior Lecturer

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OFFICE HOURS: To be determined

The Studio

ARC 6146 is a comprehensive design studio which will operate in a collaborative manner similar to that of an architecture firm. While you will all be working on one project throughout the semester, there are several components to the project. This studio, structured like a professional office, consist of presentations, desk crits, drawing, modeling, reading and discussions. You are being asked to serve as the “architect” of your experience by bringing much more to the environment than is required. The studio is a place of questioning and decision-making in which you explore, test, consider, reconsider, and collaborate. As a part of this endeavor, you will each serve as both the draftsman and the designer of for a project. All of you will serve as the project architect/designer of your own scheme.

The Project

The project is a Community Center. The center will consist of a fulltime daycare facility for infants through pre-kindergarten; a senior center for nutrition as well as socialization; a “drop-in” center for afterschool youth; and community meeting space. It is to be located at the southeast corner of the intersection of St. Mary’s Street and Nueva on what is currently a surface parking lot.

While there will be one project throughout the semester, it will be broken into several phases: research, programming, material study and detail, site design, building design, and details of construction.

Studio Responsibilities

1. Students are expected to visit the site on a regular basis outside of those conducted with the class.
2. Students are required to read the assigned materials as well as conduct individual research outside of the class.
3. Students are required to attend and vigorously participate in reviews, and class discussions.
4. Students are expected to work within studio but not depend on studio time for the completion of assigned work. At least 20 or more hours will be required each week outside of assigned studio time for the completion of assignments.
5. All Projects are DUE on the Assigned Date by START of Studio. For every 24 hour period thereafter the project is downgraded by at least one letter grade.
6. Incomplete Work will be down-graded by the % unfinished.
7. Attendance – Come to class ON TIME, Stay in class, and Work. Mandatory for the FULL CLASS TIME.
8. Unexcused Absence Policy: one is ok, two is bad, three is probation, four = failure of the course.
9. “Excused Absences” are when you are able to present a legal note sanctioning the absence, or the receipt of prior permission. No EXCEPTIONS

Course Requirements

To meet the national educational requirement for students of architecture at this level, the following NAAB criteria are assigned to the course:

3. Graphics Skills

Ability to use appropriate representational media, including freehand drawing and computer technology, to convey essential formal elements at each stage of the programming and design process

6. Fundamental Design Skills

Ability to use basic architectural principles in the design of buildings, interior spaces, and sites

14. Accessibility

Ability to design both site and building to accommodate individuals with varying physical abilities

17. Site Conditions

Ability to respond to natural and built site characteristics in the development of a program and the design of a project

23. Building Systems Integration

Ability to assess, select, and conceptually integrate structural systems, building envelope systems, environmental systems, life-safety systems, and building service systems into building design

26. Technical Documentation

Ability to make technically precise drawings and write outline specifications for a proposed design

28. Comprehensive Design

Ability to produce a comprehensive architectural project based on a building program and site that includes development of programmed spaces demonstrating an understanding of structural and environmental systems, building envelope systems, life-safety provisions, wall sections and building assemblies and the principles of sustainability

Student Evaluation:

Grading will be based on individual design and construction projects along with group project and participation.

Phase 1: Research & Preliminary Design	10%
Phase 2: Schematic Design	30%
Phase 3: Design Development	30%
Additional Consideration: Professional Development	10%
Weekly Assignments:	10%
<u>Final Presentation of All Phases</u>	<u>10%</u>
Total	100%

Grading Rationale:

A = Excellent or *Outstanding Work* -Work done is of excellent quality and the solution shows a distinct depth of understanding of the basic issues of the stated problem. Work is fully developed and exceptionally presented, whether in text and graphics. An "A" indicates that your work is exceptional and above and beyond what was required for the course. Grade Points = 4

B = Good or *Above Average Work* - Work demonstrates above average depth of understanding of the issues embodied in the stated problem. The project is developed and presented, whether in text and graphics consistent with requirements. The theoretical and quantitative aspects of design project are resolved well by the solution. Grade Points = 3

C = Work is OK or *Average* - Work done, demonstrates average effort in development and presentation. You have done everything that was expected; came to class, worked, and generated a response which was average. It does not mean you have failed. It means that you performed satisfactorily. Grade Points = 2

D = Poor or *Below Average but Passing Work* - Work demonstrates limited depth of understanding of the issues embodied in the stated problem. The theoretical and quantitative aspects of design project are not evident in solution. The project is developed and presented in a below average manner and/or is incomplete. Grade Points = 1

F = Unacceptable or *Failure* -Work demonstrates no depth of understanding of the issues or problem. No Grade.

Deliverables:

A. 18" x 24" Drawing Set (w/title blocks) and the following drawings:

- a) Cover Sheet with Project Information 3-D imagery of project (model photos, perspectives, etc....)
- b) Code Analysis / Review
- c) Site Plan & Location Plan
- d) Floor Plans
- e) Elevations (min. 2)
- f) Building Sections (min. 2)
- g) Detailed Building Sections @ 1/2" scale (as needed, min. 1)
- h) Details @ 3"= 1'-0" scale (minimum of 3 that deal with architectural concepts, and others as needed).
- i) Foundation Plan(s) @ 1/8" scale
- j) Structural Plan(s) @ 1/8" scale
- k) Dimensioning and Call-outs
- l) Accessibility Diagramming

B. LEED Report, using standard LEED report form.

C. CD / DVD including both documents above.

Weekly Assignment: Each Monday students are expected to turn in a detail drawing of a specific aspect of construction. For example, a drawing depicting a window to wall detail, stone detail, etc. Each detail is to be turned in on 8 ½ x 11 format.

REQUIRED TEXT BOOKS:

- Site Analysis, E. White
- Sun, Wind and Light, G. Z. Brown, Mark DeKay
- Architect's Studio Companion, Edward Allen, Joseph Iano
- Building Construction Illustrated, Francis D. K. Ching
- Building Structures Illustrated, Francis D. K. Ching
- Architectural Graphic Standards
- Texas Accessibility Standards, download from internet
- Additional Titles that support your area of research
- Additional Titles may be added throughout the semester

Field Trips:

Local field trips will occur throughout the semester, primarily during class time, with two days notice given.

Lectures:

Outside lectures are presented through AIA, UTSA, and other venues such as the Texas Society of Architects Annual Meeting to be held in San Antonio. Students are expected to attend.

Reading and Support Work:

Reading and research assignments will be given during the semester. Sketchbooks are a necessary part of the design process. Materials will be discussed for each project. It is expected that each student will have appropriate drafting and model making equipment from the first day of class.

Scholastic Dishonesty

The Office of Student Judicial Affairs or faculty may initiate disciplinary proceedings against any student accused of scholastic dishonesty. "Scholastic dishonesty" includes, but is not limited to, cheating, plagiarism, collusion, falsifying academic records, and any act designed to give unfair advantage to the student (such as, but not limited to, submission of essentially the same written assignment for two courses without the prior permission of the instructor, providing false or misleading information in an effort to receive a postponement or an extension on a test, quiz, or other assignment), or the attempt to commit such an act. More information is available at the following web address:

<http://www.utsa.edu/infoguide/appendices/b.html>

Reminder:

Because this is an intense, "office" studio opportunity, you are expected to be involved in studio or field research activities every class day for the entire class period. This is a team effort as part of the firm and you are responsible to the firm.

Note: Instructor reserves the right to adjust the calendar and Syllabus as the need arises.

ARC 6146

Advanced Technical Studio/Syllabus/Fall 2015/UTSA Architecture

Instructor—Rick Lewis, Architect 210/458-2574 james.lewis@utsa.edu

Office Hours/10:30 to noon T/Th Time/location: MWF 1:00 - 4:50 p.m., MNT 3.350

Catalogue:

Graduate standing and completion of prerequisite studios. An advanced architectural design studio, which includes the integration of building materials, services, and systems. Involves technical documentation and comprehensive design.

Course Intent:

As the final studio in a sequence of three graduate studios leading to the Master's Project Studio in fulfillment of **NAAB criteria** for an accredited degree, participation in ARC 6146 requires students to be able to demonstrate a wide range of proficiencies. From the array of expectations of students' skills and knowledge, numerous acquired understandings and **abilities** should be exhibited in studio achievement toward resolving integrated architectural challenges that illustrate each student's capacity to make design decisions in the following categories: (numerated as NAAB criteria)

A-2 Design Thinking

A-4 Architectural Design Skills

A-5 Ordering Systems

B-1 Pre-Design Investigative Skills/Assessments

B-2 Site Design Appropriateness

B-3 Codes and Regulations Relative to Life Safety Concerns

B-4 Technical Documentation Communications

B-5 Structural Systems Comprehension

B-6 Environmental Systems Accommodations

C-2 Integrated Evaluations and Decision-making Processes

C-3 Integrative Design Abilities

Developing within a Learning Culture (a practice)

Collaborating and Learning Relative to the Team Work Practice Traditions

Process:

Each student must demonstrate an ability to analyze, plan for, and appropriately respond to unique design challenges while working within given contextual parameters. Designers will be put to task to resolve comprehensive architectural problems in a manner befitting:

- Effective functional resolutions,
- Appropriate environmental and climatic realities,
- Justifiable construction technologies, and
- Responsible life safety/user convenience considerations

Initiatives:

Building on the foundations of a diverse undergraduate education, life experiences, and the first two studios of graduate work, this studio is intended to reinforce methodologies and techniques relating to:

- Effective work scheduling and task prioritization
- Site analysis and Setting Interpretations
- Information assimilation
- Problem Solving relevant to spatial relationships and ordering principles, integration of interior and exterior space, analysis and documentation of historic and contemporary precedents, & applications of architectural theory

- Graphic communication skills relative to the presentation of concepts, processes, and defensible solutions.

Organization:

At the semester's initiation class members will undertake:

- A primer tectonics exercise leading to a
- Team oriented project of producing a preliminary design development (DD's) set of drawings, and
- Conclude the course with one individual design project of in-depth integrative resolution.
- In addition, supportive research endeavors in accordance with course scheduling, scope of course expectations, and student design progress will be assigned throughout the semester. Inasmuch as the studio will be managed in a highly professional manner, yet geared to be fairly fluid given the nature of the way design projects are progressed, class members should be prepared for changes in work product expectations as the semester unfolds.

Design Projects and Research Endeavors:

1. Each student will be expected to perform **an analytical interpretation (tectonics explanation) of a recent graduate studio project** in a manner that speaks to the construction systems and materiality of the proposed architecture. This exercise will take around two weeks to accomplish and will count some 15% of course grade.
2. Students will next undertake the development of **an abbreviated set of construction documents** (actually DD's) based on concept design representation drawings for a building to be built within the bounds of a projected budget and sequential schedule. This **project will be a team effort** and will account for some 25 to 30% of overall course evaluation. This assignment is expected to take some 3 to 5 weeks depending on project scope and defined deliverables.
3. The **main design project** shall be achieved over the course of some 8 to 10 weeks of course work depending on scheduling circumstances, documentation requirements, and the level of class productivity. The main project's scope will be complex enough to challenge students to integrate the full spectrum of experiences that graduate studio participants are expected to have brought with them from previous years of design work. Achievement in this project will account for some 50 to 60% of the course grade.
4. To augment student designers' appreciation of "systems" based design demands and resulting technical documentation expectations, **periodic readings, research assignments, and specific task exercises** may be required. Performance on readings, research, and technical exercises pertaining to design initiatives (as well as displays of mature professional conduct) can account for some 10% of the total course grade.

Documentation:

As a result of a semester-long process leading to fairly comprehensive design resolutions toward satisfying the level of depth and detail expected of a Master's Degree student, a specific project portfolio of work shall include the following:

- Instructor and students' collaboratively determined graphic representations of final project design results produced in prescribed reduced formats as well as a digital copy,
- and a reflective self-evaluation written statement or exit interview conversation with instructor, to complement portfolio submission as characterizes the rationale of design decisions and self-criticism of projects' successes and shortcomings.

Specific presentation deliverables will be more clearly defined in the process of documenting design challenge resolutions and proposals. Separate handouts of more specific deliverable requirements should be anticipated.

Participation:

Given the importance of this course and the responsibilities of each participant to strive to produce some of their best and most in-depth academic design work before completing their studies and entering the professional workplace, class attendance will be vital if everyone is to succeed to their highest level of accomplishment.

In light of the above statement, **3 absences from studio will be grounds for the loss of a letter grade if a valid excuse is not evident.** On the other hand, full course participation and devoted attendance may benefit a student when course evaluations are finalized.

Excused absences are defined as your having received permission to miss class prior to the absence, or a valid (according to University policy) note providing for a sanctioned excuse is presented to instructor upon return to class. Work product deliverables are due at the beginning of due dates unless otherwise announced. Unexcused late work will not be accepted.

Constructive course participation and diligence of effort will be expected of every student whether working individually or as a member of a team. Participation in cultural events and professional venues of learning experience beyond the classroom (i.e. College Lecture Series, AIA Lectures, etc.), will be announced and highly encouraged.

Field Trips & Work Preparedness:

While every effort will be made to announce field trips in advance of travel, students should be prepared to go into the field on short notice as demands arise. Instructor reserves the right to adjust the course calendar and project scheduling as deemed necessary to accommodate field learning experiences or changes in studio projects' scope.

As time and student finances allow, the class may travel to a regional city (Houston or perhaps Austin) for a day-long tour of significant architecture, landscapes, and cultural destinations relevant to course goals and learning objectives.

Students with Disabilities:

UTSA, in compliance with the Americans with Disabilities Act, provides reasonable accommodation to students with disabilities. Students requesting such accommodations must provide instructor with official documentation from the University's Student Disability Services office. For additional information : www.utsa.edu/disability.

Scholastic Dishonesty:

The Office of Student Judicial Affairs or faculty members may initiate disciplinary proceedings against any student accused of scholastic dishonesty. Acts of cheating, plagiarism, collusion, falsifying academic records, and any other act designed to give unfair advantage to a student will not be tolerated.

Evaluation:

Work product evaluations (and corresponding grades) will be yielded at several intervals throughout the semester.

While percentages of overall course grade will be more heavily weighed on the final presentations of completed design solutions, day-to-day class participation and individual student development/achievement will be factored into the final course grades. Refer to the course schedule for precise evaluation percentages. The system for evaluating the quality of individual student performance is interpreted as follows:

Evaluation Continued:

Standard	Letter Grade	Numerical Range
Excellent scholarship in design performance & independent resourcefulness exhibited. (well above & beyond course requirements)	A+	90-100
	A	
Precise scholarship in design performance & good level of individual initiative exhibited. (above average work)	A-	80-89
	B+	
	B	
Lacking in achievement of scholarly accomplishment with questions persisting regarding commitment and/or abilities. (average work)	B-	70-79
	C+	
	C	
Minimum merit. (below average yet passing)	C-	60-69
	D+	
	D	
Seriously lacking in initiative, scholarly commitment, design abilities and/or graphic accomplishment. (unacceptable)	D-	below 60
	F	

Studio Management, Work Place Etiquette, and Non-Production Studio Related Technology Policies:

In an effort to insure that the College of Architecture, Construction, and Planning, as well as the Department of Architecture are appropriately & professionally represented within the context of the University community, it will be critical that the following standards of studio upkeep & work etiquette be adhered to.

1. Air born paints, adhesives, drawing fixatives, etc., will not be allowed to be used anywhere within the building or outside of the Monterey Bldg. A paint hood is available for such activities adjacent to the wood working shop.
2. Desk, tables, floor surfaces, etc., shall not be used as model cutting surfaces. Bring a cutting surface to class if you intend to build a model.
3. Classroom painted gypsum board wall surfaces shall be treated respectfully as drawing pin-up areas.
4. Furniture shall not be removed from studio, nor shall any additional furniture be allowed into the studio without instructor consent (exception being an appropriately sized lockable tool storage container).
5. Meals shall not be eaten in studio. Light snacks and drinks will be allowed provided that they are carefully managed.
6. Security of studio space will be the responsibility of everyone in the class. Particularly look out for one another as you come and go at late hours.
7. Use of College provided computers and related equip., shall be in accordance with UTSA policies.
8. **Streaming of entertainment such as TV, films, video, etc., will not be allowed during studio unless relevant to web-based research.**
9. **Cell phones shall be turned off completely while in studio. Limited phone calls and texts should be made outside of the classroom during a reasonable number of break periods. Please respect this policy.**
10. **Audible music is not permitted in class and personal listening devices complemented by earphones will not be allowed to be used during studio hours** (refer to note of justification below).

In light of challenges of communicative cohesion within studios, instructor will be requiring course participants to unplug from personal music listening devices in an attempt to heighten students' awareness of what is transpiring in the studio at all times. Students are being required to adhere to this policy toward advancing the greater good of respectful collegiality, enhanced interpersonal working relationships, and overall studio comradeship—the sort of things that will ideally be expected of workplace studio environments within firms.

Equipment:

The standard array of freehand drawing implements, as well as computer assisted graphic means will be required of each student in accommodation of in-studio production. An effectively sized sketchbook for fieldwork will be very helpful. The full complement of final presentation materials, including 3D modeling techniques will be responsibility of each student.

All means of hand-drawn, physical modeling, and electronic graphic representations of design solutions will be considered for appropriateness in meeting project presentation requirements. Digital (Power-Point or other such software) presentations of design work should be anticipated for projects as well as research assignments.

References:

Highly recommended book investments in building a sound reference library.

- *Building Construction Illustrated*, by Francis Ching, Wiley Press. Recent edition.
- *Architectural Graphic Standards*, by the AIA, Wiley Press. Any edition but the more recent the better.

Sources to consider purchasing as will benefit the inexperienced design professional.

- *Integrated Buildings; A Systems Basis of Architecture*, by Leonard Bachman, Wiley Press. 2003 edition or reprint.
- *Integrated Strategies in Architecture*, by Joan Zunde & Hocine Bougdah, Taylor and Francis Press, 2006 edition.
- *The Green Studio Handbook; Environmental Strategies for Schematic Design*, by Alison Kwok and Walter Grondzik, Architectural Press, 2011 edition.

Faculty Leeway:

This Syllabus is provided for informational purposes regarding the anticipated course content and schedule of this course. It is based upon the most recent information available on the date of its issuance and is as accurate and complete as possible.

Instructor reserves the right to make any changes deemed necessary and/or appropriate. Instructor will make best efforts to communicate any changes in the syllabus in a timely and professional manner. Students are responsible for being aware of these changes.

End Syllabus

ARC 6146

Aug. 19, 2015

Advanced Technical Studio/Schedule/Fall 2015/UTSA Architecture

Instructor—Rick Lewis, Architect 210/458-2574 james.lewis@utsa.edu

Topic/Emphasis of Effort	Goals/Deliverables	Time Line
Individual Tectonics Examination	Beginning with a representative building section of your selected project, develop a series of wall sections incorporating foundation-to-roof structural stability and weather-resistive details relevant to proposed building's composition, constructability, and performance standards.	Wed. Aug. 19 Prelim. sketch review & comparative bldg. research precedents Mon. Aug. 24 Prelim. drafting review Fri. Aug. 28 Final draft Fri. Sept. 4 Single 24x36 sheet deliverable.
Initial DD Production Project (team endeavor)	Establish scope of work, and listing of drawings and specifications requirements based on project as dispersed to each team.	Fri. Aug. 28
	Determination of team responsibilities and who is best suited to achieve what drawings, specs., code compliance verifications, cost estimate projections, & construction phasing forecasts.	Mon. Aug. 31
	Presentation by Guest Architect	Wed. Sept. 2
	Mock-up of DD set presented to Instructor and explanation of team members' duties set forth.	Fri. Sept. 4
	Project production deliverables clarified & studio production acted on.	Fri. Sept. 4 thru Wed. Oct. 2
	30% Review set of deliverables due.	Fri. Sept. 18
	60% Review set of deliverables due.	Fri. Sept. 25
	Presentations packages due.	Fri. Oct. 2
	Record of product finalized and turned in.	Week of Oct. 5
	Introduction of Main Design Project	Programming research, site selection, contextual investigations, & precedence studies. Students will be allowed to choose from a selection of 3 building-use/spatial-quality project type (to be defined).

ARC 6146 Advanced Technical Studio

COLLEGE OF ARCHITECTURE - THE UNIVERSITY OF TEXAS AT SAN ANTONIO

Time and Place: MWF 1:00-4:50, Third Floor Monterey Building – Graduate Studio

Sue Ann Pemberton, FAIA

OFFICE: Department Office, First Floor, Monterey Building

TELEPHONE: 458.2520 210.364.7701 (mobile number, use it wisely)

E-mail: sueann.pembertonhaugh@utsa.edu

OFFICE HOURS: To be determined

ARC 6146 Advanced Technical Studio

(0–14) 6 hours credit. Prerequisites: Graduate standing and consent of instructor. An advanced architectural design studio, which includes the integration of building materials, services, and systems, technical documentation and comprehensive design. (Formerly titled “Advanced Design Studio III.”)

Architecture, when done well, can improve lives.



And perhaps no building typology better exemplifies this transformative power than schools — the place where young minds are nurtured, where future leaders are reared.

The Studio:

ARC 6146 is a comprehensive design studio, which will operate in a collaborative manner similar to that of an architecture firm. While you will all be working on one project throughout the semester, there are several components to the project. This studio, structured like a professional office, consist of presentations, desk crits, drawing, modeling, reading and discussions. You are being asked to serve as the “architect” of your experience by bringing much more to the environment than is required. The studio is a place of questioning and decision-making in which you explore, test, consider, reconsider, and collaborate.

The Project: An Inner-City School

While there will be one project throughout the semester, it will be broken into several phases: research, programming, material study and detail, site design, building design, and details of construction.

NAAB criteria assigned to the course:

· **U_n_d_e_r_s_t_a_n_d_i_n_g**—The capacity to classify, compare, summarize, explain, and/or interpret information.

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.5 Ordering Systems: *Ability* to apply the fundamentals of both natural and formal ordering systems and the capacity of each to inform two- and three-dimensional design.

B.2 Site Design: *Ability* to respond to site characteristics, including urban context and developmental patterning, historical fabric, soil, topography, ecology, climate, and building orientation, in the development of a project design.

B.5 Structural Systems: *Ability* to demonstrate the basic principles of structural systems and their ability to withstand gravitational, seismic, and lateral forces, as well as the selection and application of the appropriate structural system.

B.6 Environmental Systems: *Ability* to demonstrate the principles of environmental systems' design, how design criteria can vary by geographic region, and the tools used for performance assessment. This demonstration must include active and passive heating and cooling, solar geometry, daylighting, natural ventilation, indoor air quality, solar systems, lighting systems, and acoustics.

· **A_b_i_l_i_t_y**—Proficiency in using specific information to accomplish a task, correctly selecting the appropriate information, and accurately applying it to the solution of a specific problem, while also distinguishing the effects of its implementation.

A4. Architectural Design Skills: *Ability* to effectively use basic formal, organizational and environmental principles and the capacity of each to inform two- and three-dimensional design.

B.1 Pre-Design: *Ability* to prepare a comprehensive program for an architectural project that includes an assessment of client and user needs; an inventory of spaces and their requirements; an analysis of site conditions (including existing buildings); a review of the relevant building codes and standards, including relevant sustainability requirements, and an assessment of their implications for the project;

B.3. Codes and Regulations: *Ability* to design sites, facilities, and systems that are responsive to relevant codes and regulations, and include the principles of life-safety and accessibility standards.

B.4 Technical Documentation: *Ability* to make technically clear drawings, prepare outline specifications, and construct models illustrating and identifying the assembly of materials, systems, and components appropriate for a building design.

C.2 Integrated Evaluations and Decision-Making Design Process: *Ability* to demonstrate the skills associated with making integrated decisions across multiple systems and variables in the completion of a design project. This demonstration includes problem identification, setting evaluative criteria, analyzing solutions, and predicting the effectiveness of implementation.

C.3 Integrative Design: *Ability* to make design decisions within a complex architectural project while demonstrating broad integration and consideration of environmental stewardship, technical documentation, accessibility, site conditions, life safety, environmental systems, structural systems, and building envelope systems and assemblies.

Expectations

1. Students are expected to visit the site on a regular basis outside of those conducted with the class.
2. Students are required to read the assigned materials as well as conduct individual research outside of the class.
3. Students are required to attend and vigorously participate in reviews, and class discussions.
4. Students are expected to work within studio but not depend on studio time for the completion of assigned work. At least 20 or more hours will be required each week outside of assigned studio time for the completion of assignments.
5. All Projects are DUE on the Assigned Date by START of Studio. For every 24 hour period thereafter the project is downgraded by at least one letter grade.
6. Incomplete Work will be down-graded by the % unfinished.
7. Attendance – Come to class ON TIME, Stay in class, and Work. Mandatory for the **FULL CLASS TIME**.
8. Unexcused Absence Policy: one is ok, two is bad, three is probation, four = failure of the course.
9. "Excused Absences" are when you are able to present a legal note sanctioning the absence, or the receipt of prior permission. No EXCEPTIONS
10. Students are expected to refrain from movies, video chat, cell phone usage during class time, UNLESS it is to the benefit of the entire class. **That's right, no movies or videos during studio!**

Grading will be based on individual design and construction projects along with group project and participation.

Phase 1: Research & Preliminary Design	10%
Phase 2: Schematic Design	30%
Phase 3: Design Development	30%
Additional Consideration: Professional Development	10%
Weekly Assignments/details:	10%
<u>Final Presentation of All Phases</u>	<u>10%</u>
Total	100%

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F = Unacceptable or *Failure* -Work demonstrates no depth of understanding of the issues or problem. No Grade.

Weekly Assignment: Each Wednesday students are expected to have completed a detail drawing of a specific detail of construction. For example, a drawing depicting a connection or detail, etc. These are to be hand drawn and kept in a sketchbook along with research details and resources.

- Site Analysis, E. White
- Sun, Wind and Light, G. Z. Brown, Mark DeKay
- Architect's Studio Companion, Edward Allen, Joseph Iano
- Building Construction Illustrated, Francis D. K. Ching
- Building Structures Illustrated, Francis D. K. Ching
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Field Trips:

Local field trips will occur throughout the semester, primarily during class time, with two days notice given.

Lectures:

Outside lectures are presented through AIA and UTSA. Students are expected to attend.

Reading and Support Work:

Reading and research assignments will be given during the semester. Sketchbooks are a necessary part of the design process. Materials will be discussed for each project. It is expected that each student will have appropriate drafting and model making equipment from the first day of class.

Studio Culture:

<http://cacp.utsa.edu/academic-programs/department-of-architecture/studio-culture>

ACADEMIC INTEGRITY / SCHOLASTIC INTEGRITY / Code of Conduct / Counseling / Medical / Tutoring / Disability / etc:

<http://provost.utsa.edu/syllabus.asp>

Deliverables: These are considered the minimum requirements.

- A. Schematic Design - 18" x 24" Drawing Set (w/title blocks) and the following drawings:
 - a) Cover Sheet with Project Information 3-D imagery of project (model photos, perspectives, etc....)
 - b) Code Analysis / Review
 - c) Site Plan & Location
 - d) Floor Plans
 - e) Elevations
 - f) Building Sections
- B. Design Development
 - g) Detailed Building Sections @ 3/4" scale (as needed, min. 1)
 - h) Detailed Wall section and Details of that Wall section @ 3"= 1'-0" scale (minimum of 3 that deal with architectural concept, and others as needed).
 - i) Foundation Plan(s) @ 1/8" scale or as agreed upon
 - j) Structural Plan(s) @ 1/8" scale or as agreed upon
 - k) Dimensioning and Material Notes Called out
 - l) Accessibility Diagramming.

Reminder:

Because this is an intense, “office” studio opportunity, you are expected to be involved in studio or field research activities every class day for the entire class period. This is a team effort as part of the firm and you are responsible to the firm.

Note: Instructor reserves the right to adjust the calendar and Syllabus as the need arises.

ARC 6146

Advanced Technical Studio/Syllabus/Fall 2015/UTSA Architecture

Instructor—Rick Lewis, Architect 210/458-2574 james.lewis@utsa.edu

Office Hours/10:30 to noon T/Th Time/location: MWF 1:00 - 4:50 p.m., MNT 3.350

Catalogue:

Graduate standing and completion of prerequisite studios. An advanced architectural design studio, which includes the integration of building materials, services, and systems. Involves technical documentation and comprehensive design.

Course Intent:

As the final studio in a sequence of three graduate studios leading to the Master's Project Studio in fulfillment of **NAAB criteria** for an accredited degree, participation in ARC 6146 requires students to be able to demonstrate a wide range of proficiencies. From the array of expectations of students' skills and knowledge, numerous acquired understandings and **abilities** should be exhibited in studio achievement toward resolving integrated architectural challenges that illustrate each student's capacity to make design decisions in the following categories: (numerated as NAAB criteria)

A-2 Design Thinking

A-4 Architectural Design Skills

A-5 Ordering Systems

B-1 Pre-Design Investigative Skills/Assessments

B-2 Site Design Appropriateness

B-3 Codes and Regulations Relative to Life Safety Concerns

B-4 Technical Documentation Communications

B-5 Structural Systems Comprehension

B-6 Environmental Systems Accommodations

C-2 Integrated Evaluations and Decision-making Processes

C-3 Integrative Design Abilities

Developing within a Learning Culture (a practice)

Collaborating and Learning Relative to the Team Work Practice Traditions

Process:

Each student must demonstrate an ability to analyze, plan for, and appropriately respond to unique design challenges while working within given contextual parameters. Designers will be put to task to resolve comprehensive architectural problems in a manner befitting:

- Effective functional resolutions,
- Appropriate environmental and climatic realities,
- Justifiable construction technologies, and
- Responsible life safety/user convenience considerations

Initiatives:

Building on the foundations of a diverse undergraduate education, life experiences, and the first two studios of graduate work, this studio is intended to reinforce methodologies and techniques relating to:

- Effective work scheduling and task prioritization
- Site analysis and Setting Interpretations
- Information assimilation
- Problem Solving relevant to spatial relationships and ordering principles, integration of interior and exterior space, analysis and documentation of historic and contemporary precedents, & applications of architectural theory

- Graphic communication skills relative to the presentation of concepts, processes, and defensible solutions.

Organization:

At the semester's initiation class members will undertake:

- A primer tectonics exercise leading to a
- Team oriented project of producing a preliminary design development (DD's) set of drawings, and
- Conclude the course with one individual design project of in-depth integrative resolution.
- In addition, supportive research endeavors in accordance with course scheduling, scope of course expectations, and student design progress will be assigned throughout the semester. Inasmuch as the studio will be managed in a highly professional manner, yet geared to be fairly fluid given the nature of the way design projects are progressed, class members should be prepared for changes in work product expectations as the semester unfolds.

Design Projects and Research Endeavors:

1. Each student will be expected to perform **an analytical interpretation (tectonics explanation) of a recent graduate studio project** in a manner that speaks to the construction systems and materiality of the proposed architecture. This exercise will take around two weeks to accomplish and will count some 15% of course grade.
2. Students will next undertake the development of **an abbreviated set of construction documents** (actually DD's) based on concept design representation drawings for a building to be built within the bounds of a projected budget and sequential schedule. This **project will be a team effort** and will account for some 25 to 30% of overall course evaluation. This assignment is expected to take some 3 to 5 weeks depending on project scope and defined deliverables.
3. The **main design project** shall be achieved over the course of some 8 to 10 weeks of course work depending on scheduling circumstances, documentation requirements, and the level of class productivity. The main project's scope will be complex enough to challenge students to integrate the full spectrum of experiences that graduate studio participants are expected to have brought with them from previous years of design work. Achievement in this project will account for some 50 to 60% of the course grade.
4. To augment student designers' appreciation of "systems" based design demands and resulting technical documentation expectations, **periodic readings, research assignments, and specific task exercises** may be required. Performance on readings, research, and technical exercises pertaining to design initiatives (as well as displays of mature professional conduct) can account for some 10% of the total course grade.

Documentation:

As a result of a semester-long process leading to fairly comprehensive design resolutions toward satisfying the level of depth and detail expected of a Master's Degree student, a specific project portfolio of work shall include the following:

- Instructor and students' collaboratively determined graphic representations of final project design results produced in prescribed reduced formats as well as a digital copy,
- and a reflective self-evaluation written statement or exit interview conversation with instructor, to complement portfolio submission as characterizes the rationale of design decisions and self-criticism of projects' successes and shortcomings.

Specific presentation deliverables will be more clearly defined in the process of documenting design challenge resolutions and proposals. Separate handouts of more specific deliverable requirements should be anticipated.

Participation:

Given the importance of this course and the responsibilities of each participant to strive to produce some of their best and most in-depth academic design work before completing their studies and entering the professional workplace, class attendance will be vital if everyone is to succeed to their highest level of accomplishment.

In light of the above statement, **3 absences from studio will be grounds for the loss of a letter grade if a valid excuse is not evident.** On the other hand, full course participation and devoted attendance may benefit a student when course evaluations are finalized.

Excused absences are defined as your having received permission to miss class prior to the absence, or a valid (according to University policy) note providing for a sanctioned excuse is presented to instructor upon return to class. Work product deliverables are due at the beginning of due dates unless otherwise announced. Unexcused late work will not be accepted.

Constructive course participation and diligence of effort will be expected of every student whether working individually or as a member of a team. Participation in cultural events and professional venues of learning experience beyond the classroom (i.e. College Lecture Series, AIA Lectures, etc.), will be announced and highly encouraged.

Field Trips & Work Preparedness:

While every effort will be made to announce field trips in advance of travel, students should be prepared to go into the field on short notice as demands arise. Instructor reserves the right to adjust the course calendar and project scheduling as deemed necessary to accommodate field learning experiences or changes in studio projects' scope.

As time and student finances allow, the class may travel to a regional city (Houston or perhaps Austin) for a day-long tour of significant architecture, landscapes, and cultural destinations relevant to course goals and learning objectives.

Students with Disabilities:

UTSA, in compliance with the Americans with Disabilities Act, provides reasonable accommodation to students with disabilities. Students requesting such accommodations must provide instructor with official documentation from the University's Student Disability Services office. For additional information : www.utsa.edu/disability.

Scholastic Dishonesty:

The Office of Student Judicial Affairs or faculty members may initiate disciplinary proceedings against any student accused of scholastic dishonesty. Acts of cheating, plagiarism, collusion, falsifying academic records, and any other act designed to give unfair advantage to a student will not be tolerated.

Evaluation:

Work product evaluations (and corresponding grades) will be yielded at several intervals throughout the semester.

While percentages of overall course grade will be more heavily weighed on the final presentations of completed design solutions, day-to-day class participation and individual student development/achievement will be factored into the final course grades. Refer to the course schedule for precise evaluation percentages. The system for evaluating the quality of individual student performance is interpreted as follows:

Evaluation Continued:

Standard	Letter Grade	Numerical Range
Excellent scholarship in design performance & independent resourcefulness exhibited. (well above & beyond course requirements)	A+	90-100
	A	
Precise scholarship in design performance & good level of individual initiative exhibited. (above average work)	A-	80-89
	B+	
	B	
Lacking in achievement of scholarly accomplishment with questions persisting regarding commitment and/or abilities. (average work)	B-	70-79
	C+	
	C	
Minimum merit. (below average yet passing)	C-	60-69
	D+	
	D	
Seriously lacking in initiative, scholarly commitment, design abilities and/or graphic accomplishment. (unacceptable)	D-	below 60
	F	

Studio Management, Work Place Etiquette, and Non-Production Studio Related Technology Policies:

In an effort to insure that the College of Architecture, Construction, and Planning, as well as the Department of Architecture are appropriately & professionally represented within the context of the University community, it will be critical that the following standards of studio upkeep & work etiquette be adhered to.

1. Air born paints, adhesives, drawing fixatives, etc., will not be allowed to be used anywhere within the building or outside of the Monterey Bldg. A paint hood is available for such activities adjacent to the wood working shop.
2. Desk, tables, floor surfaces, etc., shall not be used as model cutting surfaces. Bring a cutting surface to class if you intend to build a model.
3. Classroom painted gypsum board wall surfaces shall be treated respectfully as drawing pin-up areas.
4. Furniture shall not be removed from studio, nor shall any additional furniture be allowed into the studio without instructor consent (exception being an appropriately sized lockable tool storage container).
5. Meals shall not be eaten in studio. Light snacks and drinks will be allowed provided that they are carefully managed.
6. Security of studio space will be the responsibility of everyone in the class. Particularly look out for one another as you come and go at late hours.
7. Use of College provided computers and related equip., shall be in accordance with UTSA policies.
8. **Streaming of entertainment such as TV, films, video, etc., will not be allowed during studio unless relevant to web-based research.**
9. **Cell phones shall be turned off completely while in studio. Limited phone calls and texts should be made outside of the classroom during a reasonable number of break periods. Please respect this policy.**
10. **Audible music is not permitted in class and personal listening devices complemented by earphones will not be allowed to be used during studio hours** (refer to note of justification below).

In light of challenges of communicative cohesion within studios, instructor will be requiring course participants to unplug from personal music listening devices in an attempt to heighten students' awareness of what is transpiring in the studio at all times. Students are being required to adhere to this policy toward advancing the greater good of respectful collegiality, enhanced interpersonal working relationships, and overall studio comradeship—the sort of things that will ideally be expected of workplace studio environments within firms.

Equipment:

The standard array of freehand drawing implements, as well as computer assisted graphic means will be required of each student in accommodation of in-studio production. An effectively sized sketchbook for fieldwork will be very helpful. The full complement of final presentation materials, including 3D modeling techniques will be responsibility of each student.

All means of hand-drawn, physical modeling, and electronic graphic representations of design solutions will be considered for appropriateness in meeting project presentation requirements. Digital (Power-Point or other such software) presentations of design work should be anticipated for projects as well as research assignments.

References:

Highly recommended book investments in building a sound reference library.

- *Building Construction Illustrated*, by Francis Ching, Wiley Press. Recent edition.
- *Architectural Graphic Standards*, by the AIA, Wiley Press. Any edition but the more recent the better.

Sources to consider purchasing as will benefit the inexperienced design professional.

- *Integrated Buildings; A Systems Basis of Architecture*, by Leonard Bachman, Wiley Press. 2003 edition or reprint.
- *Integrated Strategies in Architecture*, by Joan Zunde & Hocine Bougdah, Taylor and Francis Press, 2006 edition.
- *The Green Studio Handbook; Environmental Strategies for Schematic Design*, by Alison Kwok and Walter Grondzik, Architectural Press, 2011 edition.

Faculty Leeway:

This Syllabus is provided for informational purposes regarding the anticipated course content and schedule of this course. It is based upon the most recent information available on the date of its issuance and is as accurate and complete as possible.

Instructor reserves the right to make any changes deemed necessary and/or appropriate. Instructor will make best efforts to communicate any changes in the syllabus in a timely and professional manner. Students are responsible for being aware of these changes.

End Syllabus

ARC 6146

Aug. 19, 2015

Advanced Technical Studio/Schedule/Fall 2015/UTSA Architecture

Instructor—Rick Lewis, Architect 210/458-2574 james.lewis@utsa.edu

Topic/Emphasis of Effort	Goals/Deliverables	Time Line
Individual Tectonics Examination	Beginning with a representative building section of your selected project, develop a series of wall sections incorporating foundation-to-roof structural stability and weather-resistive details relevant to proposed building's composition, constructability, and performance standards.	Wed. Aug. 19 Prelim. sketch review & comparative bldg. research precedents Mon. Aug. 24 Prelim. drafting review Fri. Aug. 28 Final draft Fri. Sept. 4 Single 24x36 sheet deliverable.
Initial DD Production Project (team endeavor)	Establish scope of work, and listing of drawings and specifications requirements based on project as dispersed to each team.	Fri. Aug. 28
	Determination of team responsibilities and who is best suited to achieve what drawings, specs., code compliance verifications, cost estimate projections, & construction phasing forecasts.	Mon. Aug. 31
	Presentation by Guest Architect	Wed. Sept. 2
	Mock-up of DD set presented to Instructor and explanation of team members' duties set forth.	Fri. Sept. 4
	Project production deliverables clarified & studio production acted on.	Fri. Sept. 4 thru Wed. Oct. 2
	30% Review set of deliverables due.	Fri. Sept. 18
	60% Review set of deliverables due.	Fri. Sept. 25
	Presentations packages due.	Fri. Oct. 2
	Record of product finalized and turned in.	Week of Oct. 5
	Introduction of Main Design Project	Programming research, site selection, contextual investigations, & precedence studies. Students will be allowed to choose from a selection of 3 building-use/spatial-quality project type (to be defined).