ARCH 5336 Advanced Pro Practice II: Programming and Site Planning, Spring 2013
Course Syllabus

Instructor: Edward Nelson, AIA, LEED AP

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Office Hours: Before or after scheduled class meetings.

Section Information: ARCH 5336 – Advanced Professional Practice: Programming and Technical Site Planning

Time and Place of Class Meetings: Mondays & Wednesdays
7:30PM - 8:50PM, Room 401

Description of Course Content: (3-0) The course covers the programming phase of a project, discussing how to document a client's needs and interpret those needs into a code complying, tangible building. The course closes with on overview of the technical aspects of site planning, including grading, utilities, zoning and accessibility requirements.

Architectural programming is the definitional stage of design-the time to discover the nature of the design problem, rather than the nature of the design solution. It is the time in which the relative values of the client, user, architect, and society are identified; important project goals are articulated; facts about the project are uncovered; and facility needs are made explicit. From Handbook of Environmental Psychology, Robert Hershberger, AIA.

Student Learning Outcomes: Develop an understanding of how to listen to your client and assimilate their needs into a programming document. Develop a skill level to accurately understand the physical impact of existing site conditions and develop the ability to design a site in an efficient, environmentally sensitive and technically competent manner. Finally, prepare the student for the Programming and Site Planning sections of the A.R.E.

Requirements: Regular attendance for lectures and satisfactory completion of assignments.

Required Textbooks and Other Course Materials: Reading materials will be provided by instructor.

Descriptions of major assignments and examinations with due dates: Course work includes, Refer to attached course schedule.

Grading Policy: Drafts of the programming assignments and individual assignments for the site design will be graded immediately for the student's progressive understanding of grade status during the semester. The final grade will be the average the completed Programming Document and the final set of site drawings. Final Programming Document = 50%. Final set of Site Drawings = 50%.

Attendance Policy: Regular attendance is required. For each 3 absences deduct one letter grade from final grade to be recorded for course.

Drop Policy: Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance**. Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. Contact the Financial Aid Office for more information.

Americans with Disabilities Act: The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the *Americans with Disabilities Act (ADA)*. All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability or by calling the Office for Students with Disabilities at (817) 272-3364.

Academic Integrity: All students enrolled in this course are expected to adhere to the UT Arlington Honor Code:

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I

will follow the highest standards of integrity and uphold the spirit of the Honor Code.

Instructors may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents' Rule* 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University.

Student Support Services: UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to resources@uta.edu, or view the information at www.uta.edu/resources.

Electronic Communication Policy: The University of Texas at Arlington has adopted the University "MavMail" address as the sole official means of communication with students. MavMail is used to remind students of important deadlines, advertise events and activities, and permit the University to conduct official transactions exclusively by electronic means. For example, important information concerning registration, financial aid, payment of bills, and graduation are now sent to students through the MavMail system. All students are assigned a MavMail account. ***Students are responsible for checking their MavMail regularly.*** Information about activating and using MavMail is available at http://www.uta.edu/oit/email/. There is no additional charge to students for using this account, and it remains active even after they graduate from UT Arlington.
Bibliography:

Student Feedback Survey: At the end of each term, students enrolled in classes categorized as lecture, seminar, or laboratory shall be directed to complete a Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit http://www.uta.edu/sfs.

Final Review Week: A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

Bibliography:

Programming:

Haviland, David, Editor, *The Architect's Handbook of Professional Practice; Volume 2, The Project,* AIA Press, Washington D.C., 1994.

Pena, William, *Problem Seeking: An Architectural Programming Primer,* John Wiley & Sons, Inc., New York, 2001.

Robert B. Bechtel and Arza Churchman, editors: *Handbook of Environmental Psychology,* John Wiley & Sons, Inc., New York, 2002.

Site Planning:

Daniel Parolek, Karen Parolek and Paul Crawford, *Form Based Codes, A Guide for Planners, Urban Designers, Municipalities and Developers*, John Wiley & Sons, Inc., Hoboken, 2008.

Texas Government Code, Chapter 469, Administered by the Texas Department of Licensing and Regulation, Effective March 15, 2012. *2012 Texas Accessibility Standards, Elimination of Architectural Barriers.*

Department of Justice, September, 2010. *Guidance on the 2010 ADA Standards for Accessible Design.*

ARCH 5336 Programming and Site Planning, Spring 2013

WEEK 1 **Monday January 14**

- Review Syllabus and course schedule
- Introduction to course and semester project:
  1. Post-war urbanism in Arlington and effects on City today
  2. Site context for programming project.
  3. City's vision for redevelopment.
  4. Review assignments for semester project, prepare for site visit.
  5. Students develop list of questions for Building Manager
  6. Break-up into two teams.
- Reading assignment: *Behavioral Based Architectural Programming*, Robert Hershberger, AIA
- Research; 1) The Client, 2) The Building Type, 3) The Site

Wednesday January 16

- 1st site visit, identify what to look for and meet with facility manager. Hugh Smith Recreation Center, 1815 New York Avenue, Arlington, TX. Manager, Chuck Wood. 817-275-1351
- Reference: ASTM E 2018-01 Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process.

WEEK 2 **Monday January 21**

- **Dr. Martin Luther King Day** - No Class Scheduled

Wednesday January 23

- 2nd site visit; Hugh Smith Recreation Center, 1815 New York Avenue, Arlington, TX. Finalize findings, complete photographs and field notes.

WEEK 3 **Monday January 28**

- Begin developing Property Condition Assessment (PCA) and spatial analysis of existing facility.
- Develop numerical tabulation of existing spatial conditions.

Wednesday January 30

- Continue development of PCA

WEEK 4 **Monday February 4**

- Prepare for Client interview.
- Research Client.
- Research building type, find local examples.
- Research site.

Wednesday February 6

- Students present research findings.
- Precedent studies, research and develop presentation of current examples of recreation center design.
- Students develop interview questions.

WEEK 5 **Monday February 11**

- Develop outline for Client interview.

Wednesday February 13

- Client interview, Parks and Recreation Department, 717 W. Main Street.
    - Bill Gillmore, Assistant Director
    - Jason Landrem, ASLA, Project Manager
    - Yvonne Falgout, Programs Manager
    - Chuck Wood, Facility Manager

WEEK 6 **Monday February 18**

- Develop Value Based Programming Matrix

Wednesday February 20

- Finalize Value Based Programming Matrix

WEEK 7 **Monday February 25**

- Visit proposed site at New York and Park Row.
- Consider possible location for project.

Wednesday February 27

- Review zoning ordinances and how new facility will fit into existing and proposed future context.
- Design Data; Code research and develop schedule of all applicable codes and ordinances.
- Evaluate building code to determine type of construction, occupancy, allowable area and allowable height. Begin determining building systems.
- Develop summary regarding site selection.

WEEK 8 **Monday March 4**

- Develop tabulation of proposed spaces and room sizes
- Develop spatial relationship diagram.

Wednesday March 6

- Develop schematic floor plan and site plan, consider proposed building systems.

WEEK 9 **Monday March 11**

- Spring Break, No Class

Wednesday March 13

- Spring Break, No Class

WEEK 10 **Monday March 18**

- Continue developing schematic design, including building elevations and site plan with boundaries determined.

Wednesday March 20

- Complete Schematic design.
- Discuss grading, Consider finished floor elevation, accessibility needs at entrances and parking, access to public transportation stops.
- Add existing grades to site plan.

WEEK 11 **Monday March 25**

- Review and evaluate Fire Department access, parking and vehicular circulation. Evaluate drainage of parking facilities, surface and subsurface drainage design.
- Revise and continue development of site plans.

Wednesday March 27

- Review utilities, water, fire line and irrigation taps, sanitary sewer tap, power, location of main switch gear and transformer.
- Revise and continue development of site plans.

WEEK 12 **Monday April 1**

- Revise and continue development of site plans. Develop detailed grading plan at building entrances to verify compliance with accessibility standards.

Wednesday April 3

- Develop dimension control plan for site including building, paving elements and site structures.

WEEK 13 **Monday April 8**

- Continue to develop dimension control plan for site including building, paving elements and site structures.

Wednesday April 10

- Develop design of site structures, including ramps, rails and trash dumpster enclosures.

WEEK 14 **Monday April 15**

- Develop construction costs analysis with material take offs.

Wednesday April 17

- Continue development of construction costs analysis with material take offs.

WEEK 15 **Monday April 22**

- Refine and complete programming document.
- Refine and complete site drawings.

Wednesday April 24

- Refine and complete programming document.
- Refine and complete site drawings.
- Submit preliminary drafts (bound prints) of Programming Document and site drawings.

WEEK 16 **Monday April 29 DEAD WEEK**

- Catch up Week

Wednesday May 1

- Presentation to Arlington Parks & Recreation Department

WEEK 17 **Monday May 6**

All Assignments Due

ARCH 5336 Programming Project, Spring 2013

Project: Program for new, City of Arlington Recreation Center at Park Row and New York Avenue, Arlington, Texas

SITE: To be selected by student.

PROGRAMMING DELIVERABLES SHALL INCLUDE:

1. Property Condition Assessment (PCA) of existing Hugh Smith Recreation Center.
    a. Executive Summary
        i. Final Document Cover Sheet
        ii. Cover Letter
        iii. Table of Contents.
        iv. General Description of Property
        v. Summary of General Physical Conditions
        vi. Reference Floor Plan of Facility
    b. Site Conditions *including text and photos.*
    c. Structural Frame and Building Envelope, *including text and photos.*
    d. MEP systems, *including text and photos.*
    e. Fire Safety Systems, *including text and photos.*
    f. Interior Finishes, *including text and photos.*
    g. Numerical tabulation of the area of existing spaces.
    h. Diagrammatic model of existing spatial relationships, *color diagram at 11x17 with rooms identified and sizes noted.*

2. Precedent Studies: Report on trends in current recreation center design. Include 3) 1 page examples.

3. The client interview;
    a. Research information about client and building use.
        i. Examine client's website.
        ii. Identify client's basic goals and values.
        iii. Observe previous projects completed by client.
        iv. Research about building type, what are current trends?
        v. Find examples of new, local, similar facilities.
    b. Confirm client's basic goals and values.
    c. Discover why a new facility is needed.
    d. Identify existing activities and amenities no longer desired to retain, and why.

e. Identify existing activities and amenities desired to retain and why.
f. Identify activities and amenities not existing but determined as needed for new building.
g. Determine expected volume of users for each type of activity.
h. Identify a preliminary building area goal in square feet.
i. Identify number of levels.
j. Identify spatial relationship problems with current facility.
k. Identify positive spatial relationship conditions to retain.
l. Identify special conditions of the projected facility.
    i. Emphasis on particular special needs users?
    ii. Facility to promote alternative forms of transportation by its site placement, such as a more walkable, urban setting?
    iii. Mixed use development combined with another city facility such as a branch library?
m. Identify specific performance requirements of the new facility;
    i. Energy use.
    ii. Water conservation.
    iii. Indoor air quality.
n. Expectations of architectural aesthetics.
    i. Review images to determine architectural preferences.
o. Identify desired building area in square feet.
p. Identify how many levels-stories client will approve.
q. Identify estimated project budget, including FF&E, site acquisition, cost of construction and design fees.
r. Identify and enumerate specific *project* goals.
s. Identify critical variables.

4. Develop Value Based Programming Matrix
    a. Categorize findings from diagnostic, client interview into the following:
        i. Values
        ii. Goals
        iii. Facts
        iv. Needs
        v. Ideas

5. Chart comparing tabulation of Existing Spatial Conditions and Projected Needs.

6. Site Selection; 1 page, written summary of how chosen site meets Matrix goals.

7. Diagrammatic Study of proposed spatial relationships, to scale, in color, in the context of selected site.

8. Design Data; Schedule of all applicable codes and regulating ordinances. Identify IBC requirements. Work through building code analysis, determine allowable area, building height, and type of construction to select building systems including, structural frame, exterior wall cladding, roof assembly, and HVAC systems.

9. Develop schematic floor plans and site plan to scale. Include summary of proposed building systems.

10. Develop construction costs analysis with material take-offs.

Final document shall be bound, with 2 hard copies and 1 PDF. Document size shall be 8.5 x 11 with 11 x 17 with fold out sheets.

SITE PLANNING DELIVERABLES SHALL INCLUDE:

1. Architectural Site Plan
2. Paving Plan
3. Dimension Control Plan
4. Grading Plan
5. Detailed Grading Plan
6. Utility Plan

Develop detailed, technical site drawings suitable for bidding and permit application.

Final drawings shall be submitted as 1 set of bound prints, at 22x34 inch paper size along with PDFs of each drawing, to be delivered to client.