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

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Office Hours: Before or after scheduled class meetings.

Section Information: ARCH 5336–001 - 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) 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.

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.

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, Programming of new daycare facility, site design and documentation of daycare facility and programming and presentation to City of Arlington for new fire station. Refer to attached course schedule.

Grading Policy: Drafts of the programming assignments and individual assignments will be graded immediately for the student's progressive understanding of grade status during the semester. The final grade will be the average of the completed Daycare Center Programming Document, the Site Design and Documentation Drawings for the daycare center and the Programming Document/Oral Presentation for the new fire station.

Expectations for Out-of-Class Study: Beyond the time required to attend each class meeting, students enrolled in this course should expect to spend at least an additional 9 hours per week of their own time in course-related activities, including reading required materials and completing assignments.

Make-up Exams: To be able to take a missed exam a letter from the doctor or county coroner is required. A missed exam grade is 0. Please note the make-up exam is not the same exam as that issued on the scheduled exam date.

Grade Grievances: Any appeal of a grade in this course must follow the procedures and deadlines for grade-related grievances as published in the current undergraduate / graduate catalog.

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: UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at http://www.uta.edu/oit/cs/email/mavmail.php

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.

Emergency Exit Procedures: Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit, which is located at the north end of the architecture building, (exit stair). When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist handicapped individuals.

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, Fall 2013

WEEK 1 **Monday August 26**
- Review Syllabus and course schedule
- Introduction to course and review of learning objectives
- Reading assignment: *Texas Accessibility Standards Sections 213, 304, 305, 306, 308, 404, 604, 605, 606 & 609*
- Drawing assignment: Design "1 holer" public restroom;
  o Format; 8.5 x 11 inch sheets
  o Floor Plan, scale ¼" = 1'-0"
  o Interior elevation facing water closet and lavatory, scale ½" = 1'-0"
  o Interior elevation facing side of water closet with side wall beyond, scale ½" = 1'-0"
  o Interior elevation facing side of lavatory with side wall beyond, scale ½" = 1'-0"
  o Restroom shall be TAS compliant in all aspects including clearances, grab bars, and reach ranges for paper towel dispensers and waste receptacles.
  o Assignment due Wednesday September 4.

Wednesday August 28
- Introduction to Day Care Programming Project
- Review Project deliverables;
  o Precedent Studies
  o Tabulation of spatial requirements
  o Diagrammatic study of spatial relationships in context of site.
  o Building Code analysis
    ▪ Zoning ordinances
    ▪ Building codes
    ▪ State Regulatory Requirements
    ▪ Accessibility Requirements
- Discuss Owner's requirements and needs.
- Discuss code analysis process
- Assignment: Research and provide 1 example of similar project, prepare sheet with photos, identify name of facility, location, when built, square footage and explain why it provides a precedent for our project.

WEEK 2 **Monday September 2**
- **Labor Day** - No Class Scheduled

Wednesday September 4
- 1 holer restroom design assignment due review drawings in class.
- Drawing assignment: Design "7 holer" public restroom;
  - Format; 11 x 17 inch sheets
  - Floor Plan, scale ¼" = 1'-0"
  - Restroom shall be TAS compliant in all aspects
  - Assignment due Wednesday September 11.

WEEK 3   **Monday September 9**
- Daycare Precedent Study due, 8.5x11 inch sheet with color image or images and required text carefully arranged for presentation to client. Print on photo quality paper. Create PDF for use later.
- Develop spatial tabulation for Daycare center
  - i. Review Building Code Requirements
  - ii. Review Zoning Ordinance
  - iii. Review State Requirements
  - iv. Review Accessibility Requirements
- Assignment: create diagrammatic diagram of spatial relationships in context of site. Turn in 22x34 inch sheet with title block. Due on Monday September 16th.

Wednesday September 11
- Introduce Fire Station No. 5 Programming Project.
- Discuss development of property condition assessment (PCA).
  - Break up into evaluation teams;
    - Team 1 Building site, drainage, paving & utilities.
    - Team 2 Building envelope and structure
    - Team 3 MEP & fire safety systems
    - Team 4 Spatial function interior finish conditions.
- Assign groups for Fire Station Program, assign group leaders..

WEEK 4   **Monday September 16**
- Daycare Center diagrammatic drawing of spatial relationships due.
- Daycare Center assignment: Develop Design Data Sheet; document relevant codes, ordinances, verify requirements of codes:
  - Determine Occupancy
  - Determine Type of Construction
  - Determine Allowable Area
  - Determine Fire Resistive Requirements

Wednesday September 18
- Visit Fire Station No. 5
- Document in photos and notes the existing conditions.

WEEK 5   **Monday September 23**
- Fire Station No 5 assignment: Precedent Studies, research and develop presentation of current examples of fire station design. Each student to prepare 1 example. Due on September 30.
- Fire Station No. 5 assignment: Prepare draft of PCA, each team responsible for it's section.
- Review Hershberger's Value Based Programming Matrix
- Students develop interview questions.
- Develop outline for Client interview.

Wednesday September 25
- Client interview, City of Arlington Public Works and Transportation Department, 101 W. Abram Street.
    - Alf Bumgardner, Construction Manager
    - TBD
    - TBD
    - TBD
- 1 student from each group shall prepare a transcript of interview.

WEEK 6   **Monday September 30**
- Fire Station No. 5 Drafts of PCA due
- Develop Value Based Programming Matrix

Wednesday October 2
- Visit new City of Arlington Fire Station

WEEK 7   **Monday October 7**
- Review drafts of PCAs in class, discuss revisions.

Wednesday October 9
- Daycare Center assignment: Site Plan & Paving Plan.
    - Discuss grading
    - Discuss determining finished floor elevation.
    - Discuss Fire Department access.
    - Discuss trash removal
    - Review and evaluate vehicular circulation.

WEEK 8   **Monday October 14**
- Fire Station No. 5:
  - Continue Value Based Programming Matrix

Wednesday October 16
- Daycare Center assignment: Dimension Control Plan.
  - Discuss what needs to be dimensioned.
  - Discuss suggestions on how to position building and how contractor will physically locate building during the construction phase.
  - Discuss dimensions for paving.

WEEK 9   **Monday October 21**
- Fire Station No. 5: Assignment:
  - 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.
  - Prepare 8.5 inch x 11 inch Design Data sheet

Wednesday October 23
- Daycare Center assignment: Grading Plan.
  - Discuss grading
  - Discuss determining finished floor elevation
  - Discuss accessibility and grading at accessible routes.
  - Discuss accessibility needs at entrances and parking and access to public transportation stops.
  - Evaluate drainage of parking facilities, surface and subsurface drainage design.

WEEK 10   **Monday October 28**
- Fire Station No. 5 Assignment:
  - Develop tabulation of proposed spaces and room sizes.
  - Develop spatial relationship diagram in context of site on 22x34 sheet.

Wednesday October 30
- Daycare Center assignment: Utility Plan.
    - Review utilities, water, fire line and irrigation taps, sanitary sewer tap, power, location of main switch gear and transformer.
- Revise and continue development of civil package.

WEEK 11   **Monday November 4**
- Fire Station No 5:
    - Develop schematic floor plan and site plan, consider proposed building systems.
    - Revised PCAs due.

Wednesday November 6
- Daycare Center assignment: Architectural Site Details
    - Dumpster enclosure
    - Segmental retaining walls
    - Decorative paving at entrance.
    - Screen walls

WEEK 12   **Monday November 11**
- Fire Station No. 5
    - Identify important and unique building products or materials and develop preliminary specifications.
    - Continue to develop schematic floor plans and elevations.
    - Prepare color rendering.
    - Prepare rendered floor plan.

Wednesday November 13
- Daycare Center Site Drawing set due

WEEK 13   **Monday November 18**
- Fire Station No. 5:
    - Develop construction costs analysis with material take offs.

Wednesday November 20
- Fire Station No. 5:
    - Continue development of construction costs analysis with material take offs.

WEEK 14   Monday November 25
- Fire Station No. 5:
- Refine and complete programming document.

Wednesday November 27
- Fire Station No. 5:
- Submit preliminary drafts (bound prints) of Programming Document and drawings.

WEEK 15   Monday December 2 DEAD WEEK
- Catch up Week

Wednesday December 4
- Presentation to Arlington Parks & Recreation Department
  - Bring bound program document with CD to presentation to deliver to client.

WEEK 16   Monday December 9
All Assignments Due

FINAL GRADE NOT RECORDED UNTIL FOLLOWING IS RECEIEVED:

1. 2) bound, color copies of Program Document
2. 1) CD with PDF of program document