

**SPRING 2010**

***ARCH 212 – Social and Behavioral Factors in Design***

(Tuesday & Thursday: 2:20 – 3:25 pm; Architecture Building C, Rm 111)

**Course description.** This interdisciplinary course focuses on the interrelationships between physical environments and human behavior. Behavior will be examined in a wide variety of built and natural environments ranging from small-scale settings such as room interiors and homes, to mid-scale environments (for example, academic buildings, parks, and neighborhoods), to large-scale spaces such as cities and natural areas. These and other settings will be studied from the standpoint of how their design or environmental characteristics influence human perception, use or behavior, and the ability of persons to function effectively. Human behavior will be interpreted broadly to include environmental influences on emotional well-being, stress, and health. Practical design applications of social and behavioral factors knowledge will be illustrated and discussed.

**Objectives:** 1) survey theory and research knowledge from the social sciences and design fields relevant to understanding the interactions between people and their physical settings, and 2) foster critical and integrative thinking skills with respect to using knowledge about social and behavioral factors to develop design solutions that enhance human well-being, effective functioning, and health.

**Prerequisites:** None.

**Instructor:**

Roger Ulrich, Ph.D., Professor

Office: Williams Administration Building (office can be found in the Center for Health Systems + Design, located on ground floor of Williams Building)

Email: [roger.s.ulrich@gmail.com](mailto:roger.s.ulrich@gmail.com)

Phone: 845-7009

Office hours: Tuesday: 4:00 – 5:00 pm, Wednesday: 9:30 – 10:30 am

**Teaching Assistant:**

Stephanie Schwindel, M.Arch student

Office: Langford Building A, 4<sup>th</sup> floor “fish bowl”

Email: [schwins@neo.tamu.edu](mailto:schwins@neo.tamu.edu)

Office hours: Tuesday: 12:30 – 2:00 pm

**Required Readings**

See pages below for required readings. Readings can be downloaded from the TAMU Library Electronic Course Reserves (ARCH 212 Readings). Complete all reading assignments by the class date for which they are assigned.

***Class Date***

***Topic and Reading***

*Note: dates for guest lectures are tentative and may change*



Reading: Hamilton, K. and Watkins, D. (2009). "Evidence-Based Medicine and Healthcare Design," Chapter 5 (pages 77-91) in *Evidence-Based Design for Multiple Building Types*. John Wiley.

Mar 2, 4 **Environmental Stress**

Readings: Bell, Green, Fisher, and Baum (2001). "Effects of Noise." (pps. 147-165) in *Environmental Psychology, Fifth Ed.* Harcourt Brace.

Appleyard and Lintell. "The Environmental Quality of City Streets: The Residents' Viewpoint," *Journal of the American Institute of Planners*.

Mar 9 **Stress-Reducing Effects of Nature**

Reading: Ulrich, R. "View Through A Window May Influence Recovery from Surgery," *Science*.

Mar 11 **Knowledge for Design Practice (guest lecture by Prof. Andrew Seidel)**

No Reading. Use time to work on team project #2, *Stressful and Restorative Environments*

Mar 16, 18 **Spring Break – No Classes**

Mar 23, 25 **Biophilic Design for Improving Health**

Reading: Ulrich, R. S. (2007). "Biophilic Design of Healthcare Environments." In S. Kellert, J. Heerwagen, and M. Mador (Eds.). *Biophilic Design for Better Buildings and Communities*. New York: John Wiley.

Mar 30 ***In-class presentations of team projects on stressful and restorative environments***

April 1, 6 **Design for Reducing Fear and Deterring Crime**

Reading: Cisneros, H. (1995). *Defensible Space: Deterring Crime and Building Community*. U. S. Department of Housing and Urban Development, Washington, DC.

***Class Date***                      ***Topic and Reading***

April 8 **Second Test (covers readings, lectures, and class discussions)**

April 13, 15 **Visual Qualities of Pleasurable Buildings**

Readings: Hildebrand, G. (1999). Excerpts from *Origins of Architectural Pleasure*. University of California Press.

Groat, L. (1984). "Public Opinions of Contextual Fit." *Architecture*.

April 20, 22     **Environment-Behavior Perspectives on Cities (guest lectures by Prof. Andrew Seidel)**

Readings: Milgram, S. "The Experience of Living in Cities," *Science*.

Parr, A. E. "The Child in the City: Urbanity and the Urban Scene," *Landscape*.

Alexander, C. "A City is Not a Tree," *Architectural Forum*.

April 27     **Neuroscience and Architecture (guest lecture by Prof. Lou Tassinary)**

Reading: TBD

April 29     **Community Design to Promote Physical Activity and Public Health**

Reading: Frumkin, H., Frank, L., and Jackson, R. (2004). "Physical Activity, Sprawl, and Health," Chapter 5 (pps. 90-108) in *Urban Sprawl and Public Health: Designing, Planning, and Building Healthy Communities*. Island Press.

Finals Week     **Third Test (covers readings, lectures, and class discussions)**

## Assignments

Assignments for this class include:

- 3 tests
- 2 team projects, each of which involves observing and analyzing local environments, and giving a short team PowerPoint presentation (5 minutes) in class describing your insights and conclusions

**Late work** for team projects with a delay of 1-3 days will receive a 20% deduction in the grade; late work with a delay of 4-7 days will receive a 50% deduction; work more than one week late

will not be accepted. **No makeup tests** are allowed unless you qualify for an excused absence and provide an official note before the test justifying the absence.

### Methods for Evaluating Performance in the Course

- First Test . . . . . **20%** of course grade
  - Second Test . . . . . **20%** of course grade
  - Third Test (during Final Exams week) . . . . . **20%** of course grade
  - 1st Team Project . . . . . **10%** of course grade
  - 2nd Team Project . . . . . **10%** of course grade
  - Individual performance on team projects\* . . . . . **10%** of course grade
  - Class attendance\*\* . . . . . **10%** of course grade
- 100%**

\* Effective individual performance on team projects includes timely and appropriate application of communication and conflict resolution skills. Evaluation will be by self-assessment and assessments of your performance made by your team members.

\*\* Class attendance evaluated as follows: 0-1 absences = A; 2-3 = B; 4-5 = C; 6-7 = D; >7 = F. Absences for documented medical reasons do not count as absences.

### Americans with Disability Act (ADA) Policy

The Americans with Disabilities Act (ACT) 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 the Department of Student Life, Services for Students with Disabilities, in Room 126 of the Koldus Building, or call 845-1637.

### Scholastic Dishonesty

Written assignments are an important requirement of this class. Your access to information today is unprecedented and this access may require restraint and judgment on your part. As commonly defined, *plagiarism* consists of passing off as one's own ideas words, writings, etc. which belong to another. In accordance with this definition you are committing plagiarism if you copy the work of another person or source and turn it in as your own, even if you should have permission of that person. Please note that plagiarism in this class will not be tolerated. If you have questions regarding plagiarism and academic consequences, please consult the most recent issue of the Texas A&M University Student Rules, under "Scholastic Dishonesty."

### **Academic Integrity Statement and Honor Code**

"An Aggie does not lie, cheat or steal or tolerate those who do." For further information about the Honor Council Rules and Procedures see <http://www.tamu.edu/aggiehonor>