

ARCH 212: Social and Behavioral Factors in Design (Spring 2010)

(Tuesday & Thursday, 2:20–3:35PM, ADMN 009)

INSTRUCTOR:

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Office Hours: Tuesday 3:45–4:45PM, Wednesday 4:00-5:00PM

TEACHING ASSISTANT:

Vahid Vahdat Zad, Ph.D. Student

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“We shape our buildings, and afterwards our buildings shape us.”

– *Winston Churchill (1943)*

A. COURSE DESCRIPTION

TOPIC: This course will explore the social and behavioral factors in environmental design through critical thinking, discussions, and case studies around *two questions*: (1) how the built or natural environment influences people’s behaviors, (2) how people perceive, use, and adapt to their environment.

STRUCTURE: The lectures will be organized into *three sections*, including (1) **why** we need to consider social and behavioral factors in design, (2) **what** social and behavioral factors we should consider, and (3) **how** to address these factors in the design process. Various types of environments will be discussed, ranging from residential and institutional settings, work, learning and leisure environments, to communities and cities.

OBJECTIVES: In this class, you are expected to (1) become fascinated about social and behavioral factors in environmental design, and (2) learn to examine and address these factors in the design process.

B. PREREQUISITES: None.

C. REQUIRED READING

Please see the course schedule for required readings, which will be made available through eLearning.

D. SUGGESTED READING

(To be selected by yourself according to your interest and the topic of your class projects.)

BOOKS:

Alexander C., Ishikawa, S., Silverstein, M., Jacobson, M., Fiksdahl-King, I., & Angel, S. (1977). *A Pattern Language*. New York, NY: Oxford University Press.

Carstens, D. Y. (1993). *Site Planning and Design for the Elderly: Issues, Guidelines, and Alternatives*. New York, NY: John Wiley & Sons, Inc.

Duerk, D. P. (1993). *Architectural Programming: Information Management for Design*. New York, NY: Van Nostrand Reinhold.

Gehl, J. (1996). *Life between Buildings*. Copenhagen: Arkitektens Forlag.

Hall, E. T. (1982). *The Hidden Dimension*. New York, NY: Anchor Books.

Hildebrand, G. (1999). *Origins of Architectural Pleasure*. Berkeley, Los Angeles, London: University of California Press.

Kaplan, R., Kaplan, S., & Ryan, R. L. (1998). *With People in Mind*. Washington, DC: Island Press.

Lang, J., Burnette, C., Moleski, W., & Vachon, D. (ed.) (1974). *Designing for Human Behavior: Architecture and the Behavioral Science*. Strousburg, PA: Dowden, Hutchinson & Ross, Inc.

Lynch, K. (1960). *Image of the City*. Cambridge, MA: MIT Press.

Marcus, C. C. & Sarkissian, W. (1986). *Housing as is People Mattered: Site Design Guidelines for Medium-Density Family Housing*. Berkeley, CA: University of California Press.

Marcus, C. C., & Francis, C. (1998). *People Places: Design Guidelines for Urban Open Space*. New York, NY: Van Nostrand Reinhold.




Whyte, W. H. (1980). *The Social Life of Small Urban Spaces*. Washington, DC: Conservation Foundation.

Zeisel, J. (2006). *Inquiry by Design: Environment/Behavior/Neuroscience in Architecture, Interiors, Landscape, and Planning*. New York, NY: W.W. Norton & Company.

WEBSITE:

Environment Design Research Association. <http://www.edra.org/>

COURSE SCHEDULE


- Symbols**  Readings to be finished before the day of the class.
- :  Assignment of design journals or projects
-  Assignment due by 12pm on the day of the class.

SECTION 1: WHY DO WE CONSIDER SOCIAL AND BEHAVIORAL FACTORS IN DESIGN?

WEEK INTRODUCTION TO THE COURSE

1:

Jan. 19 **Introduction: What/Whom do We Design For?**

 Design Journal #1: Treasure hunt on TAMU campus



Jan. 21  Design Journal #1 Due

Warm-up: Presentation of Design journal #1 and Case Studies

SECTION 2: WHAT SOCIAL AND BEHAVIORAL FACTORS SHALL WE CONSIDER?


WEEK HUMAN AND NATURE

2:

- Jan. 26  Chapter 2 – Finding a good home. In *Origins of Architectural Pleasure*, pp. 15-49.
Why do we Like Nature?
 Design Journal #2: Nature and environmental design – Behavioral observations and design implications

Jan. 28 **Architecture and Nature**

WEEK 3: ENVIRONMENTAL PERCEPTION, COGNITION AND WAYFINDING

- Feb. 2  Chapter 3 – The City Image and Its Elements. In *Image of City*, pp. 46-90.
How do We Perceive and Recognize the Environment?


Feb. 4  Design Journal #2 Due

Presentation of Design Journal #2

Wayfinding: What Went Wrong?

 Design Journal #3: Design, Wayfinding and Cognitive Mapping

WEEK 4: OBSERVING AND STUDYING ENVIRONMENT-BEHAVIOR RELATIONSHIPS

Feb. 9  The location of behavioral incidents in a children’s psychiatric facility.

Post-Occupancy Evaluation and Architectural Design (Guest Lecture by Dr. Mardelle Shepley)

Feb. 11 **Video: The Social Life of Small Urban Spaces**

WEEK 5: PERSONAL SPACE AND TERRITORIALITY

Feb. 16  Chapter X: Distances in Man, in *Hidden dimension*, pp. 113-130.


Personal Space, Territoriality, and Environmental Design

Feb. 18  Design Journal #3 Due

Presentation of Design Journal #3

 Design Journal #4: Evaluation and Renovation of Personal Space in Public Settings

WEEK 6: EXTENDED DESIGN PROCESS

Feb. 23  Chapter 2 – Issue-Based Programming: A Tool for Managing the Design Process, and Chapter 7 – Easy Research Methods for Designers. In *Architectural Programming*, pp. 23-34 and pp.89-104.

Addressing Social and Behavioral Factors In the Design Process through Design Programming

Feb. 25 Observing Personal Space in Public Settings (Field exercise)

WEEK 7: CROWDING, NOISE, AND PRIVACY

Mar. 2  Mid-Term Exam

 To be provided later.

Crowding, noise and privacy and their Implications for Design

Mar. 4 📅 Design Journal #4 Due
Presentation of Design Journal #4
📁 Housing Project: Social and Behavioral Factors of Housing

WEEK 8: PROS AND CONS OF URBAN LIVES

Mar. 9 📖 Towns. In *A Pattern Language*, pp. 3-90.
Cities, Towns, and Architecture

Mar. 11 **Architectural Solutions for Urban Problems?**

WEEK 9: SPRING BREAK

9:

SECTION 3: HOW TO STUDY AND ADDRESS SOCIAL AND BEHAVIORAL FACTORS IN DESIGN?

WEEK 10: DESIGN FOR HEALING

10:

Mar. 23 📖 View through a window may influence recovery from Surgery
Architecture and Health

Mar. 25 📖 Design Based on Evidence. In *The Architecture Student's Handbook on Professional Practice*
Evidence-Based Design (Guest Lecture by Professor Kirk Hamilton)

WEEK 11: HOUSING DESIGN

11:

Mar. 30 📅 Part 1 of Housing Project (Research Report) Due
Presentation of Research Report for Housing Project

Apr. 1 📖 Chapter 3 – Basic Considerations of the Design Program. In *Housing as if People Mattered: Site Design Guidelines for Medium-Density Family Housing*, pp. 33-44.
Design for Families with Children

WEEK 12: DESIGN FOR SPATIAL EXPERIENCES

12:

Apr. 6 📖 Buildings. In *A Pattern Language*, pp. 463-538.
Design for Spatial Experiences

Apr. 8 **Spatial Experiences in Different Cultures**

WEEK 13: DESIGN FOR THE ELDERLY – WHAT IS DIFFERENT?

13:

Apr. 13 📖 Chapters 1-5. In *Site Planning and Design for the Elderly: Issues, Guidelines, and Alternatives*, pp. 1-28.
General Issues in Design for the Elderly

Apr. 15 ● Draft for Part 2 of Housing Project (Design Proposal) Due
Review for Part 2 of the Housing Project – Design Proposal

WEEK DESIGN FOR HEALTHY LIFESTYLES
14:

Apr. 20 **Environment and Health**

Apr. 22 **Promoting Healthy Lifestyles through Environmental Design**

WEEK DESIGN AND CREATE
15:

Apr. 27 **Innovative Design with People in Mind**

Apr. 29 ● Final Review of Housing Project

E. ASSIGNMENTS

Assignments for this class include four individual design journals and one team project, which involve reading, observation, analyses, and design exercises related to social and behavioral factors in design.

When working on class assignments, you are encouraged to choose a specific problem/setting that is related to your studio project(s). However, there should not be any overlap between these ARCH 212 projects and the tasks that you are assigned in your studio.

F. PERFORMANCE EVALUATION

Your performance will be evaluated based on the following components:

Four Design Journals	40%
Mid-Term Exam	10%
Housing Project: Part 1 – Research Report	20%
Part 2 – Design Proposal	20%
Class Attendance and Participation	10%
TOTAL:	100 points

The final semester grade will reflect all of your work through the course of the semester and will use the following standards.

A: 90-100 points; B: 80-89 points; C: 70-79 points; D: 60-69 points; F: 0-59 points

Late work with a delay of 1-5 days will receive a 20% deduction in the grade; late work with a delay of 6-10 days will receive a 50% deduction in the grade; late work with more than 10 days of delay will not be accepted. No **makeup** exams are allowed unless you qualify for an excused absence and provide an official note for the absence before the exam.

Earning an “A” is not automatic, nor is it based upon turning in required work on time or working hard. These are expected of every student. To earn an “A”, you must show an extraordinary devotion to your work and a willingness to push yourself to a new level of comprehension.

You are expected to be present each class day and to fully participate in all discussions and class activities. Students who are requesting an excused absence are expected to uphold the Aggie Honor Code and Student Conduct Code. The list of official excused absences can be found at: <http://student-rules.tamu.edu/rule7.htm>. To qualify for an excused absence, you must present an official note explaining the absence, either from a doctor, university official, or other appropriate authority. More than three unexcused absences will lead to a failure in this class.

G. STUDENTS WITH SPECIAL NEEDS

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit <http://disability.tamu.edu>.

H. ACADEMIC INTEGRITY STATEMENT

An Aggie does not lie, cheat, or steal or tolerate those who do. For further information on the Aggie Honor Code, please refer to the Honor Council rules and procedures on the following website: <http://www.tamu.edu/aggiehonor>.