HUMAN FACTORS FOR ARCHITECTURAL DESIGN

University of Colorado Denver | College of Architecture and Planning
Course: 6290 section 002
Seminar: 3 credits | spring 2018
Schedule: Monday + Wednesday 9:30 - 10:45
Instructor: Jim Sobey AIA

"Buildings are built to house human occupations. Any building that can enhance the purpose of its occupants is inherently more valuable. To the extent that we can provide reliable information to architects... about how design decisions will influence the performance of buildings, we can promote the construction of a physical environment that is more supportive of our health, our comfort and our overall productivity as a society." Lisa Heschong

"I aspire to encompass the poetry of society; it must provide the right spatial conditions for social life. That the things we make are surprising and look good is not enough. The architect must accept social and cultural obligations and concentrate on the creating and shaping of space." Herman Hertzberger

OVERVIEW: DESIGN + RESEARCH PROCESSES
This seminar’s purpose is to examine architectural design problems while considering potential environmental influences on the spectrum of human bios, cognitive, perceptual and behavioral systems. The seminar will provide students with working research and design methods as well as case study references for future professional design applications. It will focus specifically on each student’s potential human factors research needs in the design process, design research and design practice. Human factors research case study architectural projects ranging in scale from public urban spaces and large public buildings to intimate healthcare design and private residential facilities will be presented. Seminar presentations will focus on currently developing areas of research, the research and design process and specific applications in professional architectural practice.

GOALS: CASE STUDY KNOWLEDGE + WORKING MODELS
The goal of this seminar is to assist students in developing critical understandings of a wide range of architectural applications and to give each student working research methods of evaluation as well as appropriate research, programming and design strategies for future use in addressing human factors in built environments. Each student should complete the seminar with solid frameworks and models of application for use in their future. Architects and urban designers have a fundamental responsibility to protect the health, safety and welfare of their clients and project users. This seminar will examine the principles and processes users and designers bring to the perception, habitation and assembly of our built environments. Seminar meetings are formatted to inform students of current trends and past research used to address the human factors which influence environmental perceptions and behaviors. Class materials go beyond developing an awareness of general human factors with illustrations of specific case studies and design processes. A fundamental objective of the class is to introduce students to built examples demonstrating the principles, patterns and metrics that inform a human factors engaging design processes.

THE WORK: DESIGN PROBLEMS + RESEARCH PROCESS
The class is to be conducted as a seminar with a scheduled sequence of presented topics. Selected focused readings will add depth to weekly topics. Class content and assignments are developed from 35+ years of research and professional architectural practice as well as 13 years of teaching ‘Human Factors in Design’. The seminar format will allow for interaction, questions and detailed in-depth class discussions. Focused research and reading topics will be assigned as well as short case studies research problems. Assignments will emphasize application of tools for future architectural research and designing, not the memorization of obscure facts. Attendance will be required but exams will not be given. Each student will be encouraged to develop an appropriate research topic based on their particular relevant interest in architectural design and make contributions related to their topic of interest in a documented format.
Seminar Summary
Title: Human Factors for Design
Semester: Spring 2018
Credit hours: 3

This seminar will present architectural case studies focused on a range of physical environments and how they impact human perception, behavior and health. The goal of the seminar is to present students with specific human factors design principles, patterns and metrics, discovered thorough scientific research, which may inform architectural design applications. The seminar will focus on both scientific research and real world architectural case study applications. Current research of human perception, cognitive activity, physical health, mental wellbeing and building life safety will be illustrated in a sequence of real world examples in urban environments, healthcare facilities, social places, work places and residential designs. Each case study will be analyzed to present students with methods for future research and design applications.