measuring-up: high performance buildings - design + evaluation

Instructor
Ihab Elzeyadi, Ph.D., LEED AP
Professor of Architecture

227 Lawrence Hall
ph. 346-3670
fax 346-3626
ihab@uoregon.edu

meetings:
meets weekly
Tu & Th, 12:00-1:50 PM
Location: LA 278

CRN:
410: TBA
510: TBA

format:
interactive seminar with illustrated lectures, on-site building tours, POE field assessments, presentations by design teams related to the design process/evaluation of high-performance architecture.

readings:
reading packet on Canvas + software

prerequisites:
- Arch 4/592 (preferred)
- 6 cr. hrs of 4/584 or concurrent enrollment

grading:
graded or P/N

course objectives:
this seminar explores theory and methods behind the making of high-performance buildings (HIPB) and their performance evaluation. It will introduce students to tools and techniques of post-occupancy evaluations and performance simulations. The seminar will focus on real HIPB projects in a hands-on learning approach engaging students in an on-going performance evaluation of three LEED platinum projects. The seminar qualifies for LEED exam prep.

assignments:
(1) Comparative analysis of the theory/design process/performance of two HIPB Projects.
(2) Detailed POE of a LEED Platinum Building from process to product.

why do we do what we do?
how it performs and under what conditions?
how does a design process inform performance?
what impacts does it have on people's health and well-being?

Much is known about high performance buildings construction and LEED certification but less on the process of their conception or their consumption. Every day innovations in superior-performing building technologies are achieved while ignoring the development of theoretical grounds that led to their design or their actual performance.

The objective of this seminar is to investigate high performance buildings and test the concepts behind their design. Of equal importance is to test how these buildings actually perform "in reality." The seminar will focus on three aspects of HIPB: (1) theory, (2) design process, and (3) product impact assessment.

photo: apple campus, Cupertino, CA - Foster & Partners