

**Pratt Institute: Syllabus**  
**Graduate Center for Planning and the Environment – School of Architecture**  
**November 8 - December 6**

**ARCH 565P Section 9/10 High Performance Buildings and Urban Design**

**Principles/Best Practices**

**Credits: 1      Location: Pratt Manhattan      November 8, 15, 22, 29, 6 4pm-6:50pm**  
**Type of Course: Interactive Lecture with student presentations - Elective**  
**Enrollment Capacity: 20**  
**Instructor: Chris Benedict, R.A.      Fax: 212 477-6026      benedictra@aol.com**

**Course Description:**

Taught by a practicing architect this course will provide students with the philosophy/theory, history, and best practices underpinning innovations in high performance/green building and rehabilitation. Focusing on adaptive re-use and rehabilitation, it will offer a look at the process by which several of the architect's projects were conceived, designed and implemented.

**Goals/Learning/Objectives/Outcomes:**

Students will be conversant in the issues, opportunities and elegance, inherent in healthy, durable, energy efficient, adaptive reuse and rehabilitation projects in cold climate, urban environments. A reference guide will be created as product of the class that students can use in their future work.

**Course Requirements:**

Students must attend every class session in order to pass this course. Field trips are optional, but recommended.

Each student will be required to do a one week research project with a 10 minute presentation, and a produce a written document of 3-5 pages by the end of the class based on their research. All the research documents will be compiled into an electronic document for their future use.

**Textbook - Water in Buildings by William B. Rose, John Wiley and Sons, 2005.**

**Readings: High Performance Building Guidelines, City of New York, Dept. of Design and Construction, [www.nyc.gov/html/ddc/html/ddcgreen/highperf.html](http://www.nyc.gov/html/ddc/html/ddcgreen/highperf.html)**

Home Energy Magazine articles on Chris Benedict - <http://www.homeenergy.org>

**Additional readings** - to be distributed in class.

**Methods of Assessment:**

Students will be graded on their 10 minute presentations, their contribution to the class interactive discussions, and the final documentation of their research

For the final presentation and report each student will focus on a specific topic from a list of topics related to high performance/green building and rehabilitation that have been pre-selected by the Professor.

**10%** of the grade will be determined by how well their classroom contributions reflect a good comprehension of the lectures and readings.

**40 %** of the grade will be determined by the quality of their class presentation. Their presentation will be judged by both the quality of the research and by the student's ability to successfully convey the significant information relating to their topic to the class in a clear and concise manner. The presentation must show why and how their topic is important in achieving healthy, durable, energy efficient, adaptive reuse and rehabilitation projects in cold climate, urban environments.

**50%** of the grade will be determined by the quality of the student's written report on their chosen topic with a particular emphasis on the completeness of their research and on the identification and synthesis of the most important elements and applications of the information in relationship to best practices underpinning innovations in high performance/green building and rehabilitation. As with the class presentation, the report should be written in a clear and concise manner so as to be understandable to others.

### **Weekly Schedule and Readings:**

#### **Session 1**

##### **LECTURE:**

Programs and Loads  
Systems Approach I

**READING:** Water in Buildings by William B. Rose, Chapters 1-3  
High Performance Building Guidelines, Chapters 1&2

##### **STUDENT PRESENTATIONS:**

Discussion and description of assignment/ selection of topic by students

#### **Session 2**

##### **LECTURE**

Building Envelope

**READING:** Water in Buildings by William B. Rose, Chapters 4&5  
High Performance Building Guidelines, Chapters 5, 6 & 8  
"From Ruin to Rehab" by Henry Gifford Home, in Energy Magazine Online May/June 2000.

##### **STUDENT PRESENTATIONS:**

Programs and loads topics

#### **Session 3**

##### **LECTURE**

Mechanical Systems

**READING:** Water in Buildings by William B. Rose, Chapter 6&7  
High Performance Building Guidelines, Chapters 9-11

##### **STUDENT PRESENTATIONS:**

Building Envelope topics

**FIELD TRIP** Location and time TBD

**Session 4**      **LECTURE**  
System Approach II

READING: Water in Buildings by William B. Rose, Chapters 8&9  
High Performance Building Guidelines, Chapters 3 &4

**STUDENT PRESENTATIONS:**  
Mechanical presentations

**FIELD TRIP**   **Location and time TBD**

**Session 5**      **2 hour lecture**  
**LECTURE**  
Materials  
Myths

READING: High Performance Building Guidelines, Chapter 8

**STUDENT PRESENTATIONS:**  
System Approach II

**Each student's documentation report, based on their 10 minute presentations and instructor's comments, is due on 16 December 2005**