Course: High Performance Envelopes – Part 2  
ARCH 410 / 510 – Winter 2014  
CRN: 410 / 510: 18329 / 18330  
2 credit hours. Taking this course with the 2 credit Fall 2013 companion course will satisfy the Architecture program’s Advanced Technology requirement.

Instructor: Sean K. Scott, Adjunct Instructor, AIA, LEED AP, BEC  
Office: Ankrom Moisan Architects  
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seans@amaa.com  
Office hours: By appointment.

Lectures + Workshops: Mondays: 5:30 – 7:30PM, UO PDX White Stag Building Room 451.


Prerequisites: Building Enclosure: Design / Construction / Performance with a passing grade.  
Fall companion course HPE – Part 1

Grading: Graded or P/NP

Background
Building on the prerequisite course of “Building Enclosure: Theory and Practice” and the Fall companion course “HPE – Part 1”, this course plans to apply concepts of building technology to studio projects via problem-based learning. The durability and performance of our buildings is one of the most important topics related to the built environment today. The largest factor in this topic is the building envelope. Numerous professionals will be brought in from various roles within our industry to interact with students as we explore betterment of envelopes together, integrating as much as possible with studio classes that are current or past projects students may have.

Instructional Objectives
- Become more familiar with energy modeling and the software options with their pros and cons.
- Develop an immediately marketable service to help you gain employment straight out of your educational career – detailing.
- Be able to select appropriate building materials and assemblies for various building types, climates, budgets, and priorities.

Final Exam: Monday, March 17, 2013, 5:30pm – 7:30pm
Analyze and support various pros and cons of differing sustainability efforts on the project with the enclosure.

Explore the relationship further between the enclosure and the interior building systems (Mechanical, Lighting, Electrical, Plumbing).

LEARNING VEHICLES
Class size will be limited to 23 students. Class sessions will alternate between lecture and workshops every other week. The lecture will introduce and discuss concepts, while the workshop the following week is designed to allow a lower student to teacher ratio in groups of 3 or 4 to focus on one student’s work in a hands-on, in-process effort. Students are expected to come with the assignment drafted toward completion at the workshop, and expected to make revisions for the following week. Homework will be turned in at each workshop and graded as “in process”, final versions are turned in the following week prior to lecture.

EVALUATION
Grading is based on the following breakdown.

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
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<tbody>
<tr>
<td>8 weeks of homework</td>
<td>10 x 9 weeks = 90</td>
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<tr>
<td>Final Exam</td>
<td>20</td>
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<tr>
<td><strong>TOTAL POSSIBLE</strong></td>
<td><strong>110</strong></td>
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MONEY
In addition to typical University tuition, fee, and book expenses, additional expenses will likely be incurred for materials and supplies required for the completion of course homework and minor travel within Portland once or twice during the term.

FINAL EXAM: Monday, March 17, 2013, 5:30pm – 7:30pm