

BUILDING ENCLOSURE

**wood, metals, glass, masonry veneers and roofing;
design, detailing, performance and building science**

Instructor:	Donald Corner John Rowell	262 Onyx Bridge dcorner@uoregon.edu 485 Lawrence jrowell@uoregon.edu
Meeting Time and Place:	10:00 – 11:50 UH plus lab session as per time schedule	115 Lawrence
Format:	Lectures, lab sections, projects, in-class quizzes, mid-term, and final exam	
Credit Hours and Grading:	4 credit hours, optional grading for Undergraduates	
Prerequisites:	ARCH 4/562, 4/591	
Required Texts:	Allen, <u>Fundamentals of Building Construction Materials and Methods</u> , 4th Edition, 2004. Allen and Rand, <u>Architectural Detailing</u> , 2nd Edition, 2007. Herzog, <u>Facade Construction Manual</u> . Brock, <u>Designing the Exterior Wall</u> . Brookes, <u>Cladding of Buildings</u> , available on reserve. Posted readings drawn from supplementary texts.	

John Rowell 5/19/06 6:55 AM

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COURSE DESCRIPTION

The subject focus of this course is the weather envelope that surrounds primary structure. Major material groups will be examined in sequence: wood, metals, glass, roofing, masonry veneers and concrete panels. The emphasis will be on the selection of appropriate materials and their application to design problems which require the integration of architectural concepts with good standards of technical practice. The course will require readings, detailing projects and hands-on laboratory sessions. There will be both a mid-term and a final exam.

COURSE OBJECTIVES

1. Build on the student's developing understanding of the role and impact which construction materials and processes have in determining the form of the built environment.
2. Introduce building science concepts relevant to the building enclosure.
3. Emphasize those areas of building technology in which the architect must be competent to act alone, the enclosure envelope and the interior finish systems.
4. Study the physical properties, manufacture, appropriate use and behavior in place of traditional, contemporary and experimental materials.
5. Provide experience in construction detailing and documentation.

COURSE REQUIREMENTS

This course requires substantial reading from sources that describe the history and practice of building construction. There are extensive lectures presenting major materials groups (wood, steel, non-ferrous metals, glass, roofing, brick, stone, concrete, stucco, plaster, etc.) and detailing practices appropriate to these materials. Student understanding of these concepts and process is measured through two-hour examinations, at mid-term and end of term. The exam format varies from year to year including a closed book, multiple choice format and open book detailing tasks. There may also be quizzes given during the lecture hours, for a small percentage of the grade. In addition to the lectures, students must attend one laboratory session per week in which they will explore construction concepts, and develop and present detailing projects.