USC School of Architecture

611

PETITION TO SUBSTITUTE MASTER OF ARCHITECTURE BASIC STUDIES COURSE REQUIREMENT

Name _____ **USC ID#** _____ **Date** _____

EQUIVALENT COURSE TITLE(S) _____

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COURSE # _____ **UNITS** _____ **SEMESTER/YEAR COURSE WAS COMPLETED** _____

GRADE _____ **INSTITUTION** _____

Number & Title of Course: **ARCH 611 ADVANCED BUILDING SYSTEMS INTEGRATION 4 UNITS**

Course Description: Design criteria development, material and construction methods, occupancy-based load profiles, material life-cycle mandates, durability of advanced building systems including integrity in sustainable urban systems.

Course Goals & Objectives:
This course has three broad objectives:

- To strengthen skills in technical drawing, outline specifications writing, and model-making (illustrating and identifying the assembly of materials, systems, and components appropriate for a building design) for clarity and comprehensiveness.
- To understand the basic principles involved in the appropriate application of building envelope systems and associated assemblies relative to fundamental performance, aesthetics, moisture transfer, durability, and energy and material resources.
  To understand the basic principles utilized in the appropriate selection of construction materials, products, components, and assemblies, based on their inherent characteristics and performance, including their environmental impact and reuse.

Required Curricular Topics addressed	Met	Not Met
Building Systems and Assembly: Demonstration of US Standards		
Technical Documentation: Demonstration of US Standards		
Nomenclature: Demonstration of US Standard Nomenclature		

Required Student Performance Criterion/a addressed:	Met	Not Met
A.4 Technical Documentation		
B.10 Building Envelope Systems		
B.12 Bldg Materials/Assemblies		

Topical Outline (include percentage of time in course spent in each subject area):
Building Envelope Precedents: 10%
Materials Studies: 10%
Manipulators: 10%
Insulation Techniques: 10%
Energy Generators: 10%
Documentation/Graphics: 10%
Assembly Systems (case studies): 30%
Integrated Systems: 10%

Prerequisites: N/A

Textbooks/Learning Resources:
Herzog, Thomas with Roland Krippner and Werner Lang, Facade Construction Manual, 2004.
Lovell, Jenny, Building Envelopes: An Integrated Approach, 2010.
Moe, Kiel, Thermally Active Surfaces in Architecture, 2010.
Schittich, Christian (ed.), Building Skins, 2006.
Hausladen, G. et al, Climate Skin: Building-skin Concepts that Can Do More with Less Energy, 2006.
Elliott, Cecil D., Tectonics/Architecture: The Development of Materials and Systems for Buildings, 1992.
Hegger, Manfred et al, Energy Manual: Sustainable Architecture, 2008.

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Recommendation ❒ Substitution Approved ❒ Substitution Denied **Date** _____

Associate Director, Master of Architecture _____ **Date** _____
Selwyn Ting

Comment _____

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