PETITION TO SUBSTITUTE BACHELOR OF ARCHITECTURE COURSE REQUIREMENT

Name ___________________________ USC ID# ________________________ Date ______________

EQUIVALENT COURSE TITLE(S)

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COURSE # __________________ UNITS _______ SEMESTER/YEAR COURSE WAS COMPLETED ______

GRADE _______ TRANSFER INSTITUTION

____________________________________________________________________________

Number & Title of Course: ARCH 213A BUILDING STRUCTURES AND SEISMIC DESIGN 3 UNITS

Course Description: a: Investigation and design of elements and systems for building structures; applied mechanics, strength of materials, structural investigation as a design tool. b: Investigation and design of structure systems: their resistance to seismic and wind forces and integration.

Course Goals & Objectives:
• To develop informed intuition for structures.
• To introduce underlying concepts, formulas, and theory of structures.
• To introduce the 4 Ss of structure: Strength, Stiffness, Stability, Synergy.
• To facilitate effective communication with structural engineers.
• To introduce loads acting on buildings: gravity, wind, seismic, thermal.
• To introduce the effect of dead load (DL) and live load (LL).
• To introduce graphic methods to visualize the effect of loads.
• To introduce stress types: tension, compression, bending, shear, torsion

Required Student Performance Criterion/a addressed: Met Not Met

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<th>B.9 Structural Systems</th>
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Additional Student Performance Criterion/a addressed

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<tr>
<th>A.1 Communication Skills</th>
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<td>A.2 Design Thinking Skills</td>
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<td>A.7 Use of Precedents</td>
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Topical Outline (include percentage of time in course spent in each subject area):
Structure design (40%)
Structure analysis (60%)

Textbooks/Learning Resources:

FOR OFFICE USE ONLY

Faculty Recommendation  ☐ Substitution Approved  ☐ Substitution Denied  Date__________________

Faculty Name (printed) ____________________________________________ (signature)________________________

Comment_________________________________________________________________________________________

Director of Undergraduate Programs __________________________________________ Date ______________

Alice Kimm

Comment_________________________________________________________________________________________