TO: The Faculty of the College of Engineering

FROM: The Faculty of the Lyles School of Civil Engineering

Re: Course Requisite Change: CE 31100 Architectural Engineering

The faculty of the Lyles School of Civil Engineering has approved the following requisite change for CE 31100 Architectural Engineering: adding Prerequisite CE 21101 Thermal & Energy Sciences in Civil Engineering. This action is now submitted to the Engineering Faculty with a recommendation for approval.

From: **CE 31100 Architectural Engineering**
Sem 1 and 2, Lecture 3, Cr. 3
Prerequisite:
(Undergraduate level ME 20000)

To: **CE 31100 Architectural Engineering**
Sem 1 and 2, Lecture 3, Cr. 3
Prerequisites:
(Undergraduate level CE 21101) **or** (Undergraduate level ME 20000) **or**
(Undergraduate level EEE 38000)

Description: This course includes applications of thermal science and energy fundamentals to civil engineering topics. Emphasis is placed on fundamental concepts of properties of materials, work, heat, internal energy, entropy, equilibrium, and relations derived from the first and second laws of thermodynamics. Example applications include: power plants; fluid flow in ducts/pipes; thermal properties of building/construction materials and processes; geothermal systems; heating, ventilation, and air conditioning (HVAC) processes; energy balances in buildings; refrigeration; hydroelectric power; contaminant transport in air, water, and soil; climate change; the urban heat island effect; and energy use in the transportation sector.

REASON: This change is being made because of the addition of CE21101 to the Civil Engineering curriculum. This change will also allow the course to be taken by Environmental and Ecological Engineering students, as well as Mechanical Engineering students.

Rao S. Govindaraju
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Lyles School of Civil Engineering