



School of Architecture – Kendall Campus  
Prof. Lyle D. Culver, Post Grad. Dipl., M.Arch.

## ARC 1302 – Sustainability

**Written Assignment (Due Date –):** Complete a two page (double spaced paper) on your assigned topic to include images, source citations and bibliography. Consider the implications of your topic as it applies to sustainability and design.

**PowerPoint Presentation (Due Date –):** Prepare a 3 to 5 minute presentation on your topic with images.

**A. Materials:**

- a. Bamboo & Wood –
- b. Masonry –
- c. Concrete –
- d. Metal –

**B. Low Impact Construction**

- a. Rammed Earth –
- b. Light Clay –
- c. Earthbag –
- d. Straw-Bale –
- e. Adobe –
- f. Modular Construction –
- g. Wood Frame (Florida Vernacular) & Chiki –

**C. Lighting**

- a. Natural Lighting (fenestration, location, orientation) –
- b. Sun Path & Light Quality –

**D. Ventilation & Cooling**

- a. Natural Ventilation –
- b. Passive cooling (thermal mass, night cooling) –
- c. Shade – Porch & Vegetation –

**E. Renewable Technology**

- a. Photovoltaic –
- b. Solar Thermal –
- c. Wind –

**F. Water & Sewage**

- a. Environmental Impact of Water Collection –
- b. Water Conservation –