**ARCH 649: Advanced History of Building Technology**. 3 Credits

**Course Description.** Readings and discussion of current topics in history of building technology; development of understanding the importance of materials of construction to the creation of historical forms of sacred architecture across faith and around the world.

**Course Goals & Objectives (bulleted list):**

* Increased understanding of global cultures as evidenced through the design of sacred spaces and public spaces related to overall city form;
* Increased understanding of cultural diversity, human behavior, ethics and professional judgment in the context of sacred spaces around the world;
* Increased awareness of design thinking skills as evidenced in historic sacred architecture;
* Improved investigative, spoken, graphic, and written communication skills.

**Student Performance Criterion/a addressed (list number and title):**

* **A9 - Historical Traditions and Global Culture:** Understanding of parallel and divergent canons and traditions of architecture, landscape and urban design including examples of indigenous, vernacular, local, regional, national settings from the Eastern, Western, Northern, and Southern hemispheres in terms of their climatic, ecological, technological, socioeconomic, public health, and cultural factors.
* **A10 - Cultural Diversity:** Understanding of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the implication of this diversity on the societal roles and responsibilities of architects.

**Topical Outline (include percentage of time in course spent in each subject area):**

15% Introduction: Faith, Form, and Building Technology

14% The Sacred Path-The Plan of Sacred Buildings

14% The Sky is the Limit-The Vertical Dimension

14% The Holy Light: Can artificial light replace the natural “Holy Light?”

14% Research and Programming (including Precedent studies)

14% Thermal Comfort and its significance in Sacred Buildings

14% The Sound of Silence-Acoustics, discussion and assignment “What do we need to hear?”

15% Summary and student debate on the role of Sacred Architecture as a manifestation of a culture’s technological advancement

**Prerequisites:** Graduate classification in architecture or approval of instructor

**Textbooks/Learning Resources:**

* Mainstone, Rowland J. (2001) *Developments in Structural Form*. Paperback Edition. Oxford: Architectural Press
* Geva, Anat (2011) Frank Lloyd Wright’s Sacred Architecture: Faith, Form, and Building Technology.

**Offered (semester and year):** Fall Semester 2008, 2009, 2010, 2011, 2012, 2013

**Faculty assigned (list all faculty assigned to teach the course during the two academic years prior to the visit and whether each was F/T, P/T, or adjunct):**

* Fall 2012: Anat Geva (F/T)
* Fall 2011: Anat Geva (F/T)