Building Systems Integration

[Premise] Architecture, in general, and the act of building specifically, is a collective effort of bringing together a set of systems. Architectural technology is presented in terms of component “systems”, namely site, structure, envelope, building service, and interior systems. This course attempts to narrow the gap between architectural design intentions and the pragmatic demands of building technology.

[Content] This course draws on the information acquired in previous architectural design and building technology courses to present a general concept/principle of building systems. As an introduction to building system integrations, the course will cover the site, structural, envelope, service, and interior systems. The course further explores the principles and types of building system integrations using precedent examples and analysis software application. Weekly assignments will be accompanied to reinforce building systems integration issues discussed in class.

[Skill/outcomes] The student is expected to understand the integration issues exemplified in the course and carry out performance-based design and parametric analysis. The student should be able to further advance creative and analytical thinking of the systems integration by weekly lab activities and the Final project.

[Class Requirements and Grading]
Grading will take account of attendance, participation, performance and personal improvement. Each assignment will receive a grade. Each student’s grades will be summed and averaged at the end of the semester.

- Attendance, Discussion, & Quiz 20%
- Weekly Assignment 50%
- Final Project 30%

[Readings]
- Details magazine/ Plan magazine
- ASHRAE Fundamental 2009 IP editio