

INTEGRATED ARCHITECTURE

The architectural curriculum is designed to present to students an understanding of the designing and building process so that life is enriched through the creation of structures that are harmonious with the natural environment.

Solar Greenhouse Design and Construction

This course teaches students how to design, build, and maintain a greenhouse that is attached to a home or erected as a self-standing unit. Theory studied includes heat loss and gain calculation, energy and

passive solar applications, and construction techniques. Students apply these techniques to an on-site greenhouse project.

The Energy Efficient Home

This course presents the basic principles of heat transfer in the residential house. Students learn and have hands-on experience with techniques that control the heating and cooling action inside homes. Subjects include good design practices, heat gain and loss calculations, various insulators and their applications, air-to-air heat exchangers, and solar heat collectors. Students learn techniques of retrofitting these processes to make an existing house more energy-efficient.

House Building Series

This series of courses covers the various facets of home construction. This course is not an architectural design course, but is rather a course in the building skills necessary to carry out an architectural design.

House Building I:

Site, Layout and Foundation
In this first phase of the series, students learn about the areas of house building that lead up to the construction of the outer shell, including soil conditions, percolation, sizing and layout of footings, masonry and concrete block construction, drainage systems, waterproofing, insulation methods, back filling, and surface grading.

House Building II:

Shell Construction

Students encounter the various facets of constructing the outer shell of a residential home. This course concerns itself with platform and balloon framing, post and beam construction, exterior finishes, roofing, door and window layout, and safety precautions related to the use of power tools.

House Building III:

Electrical and Plumbing

This course, to be taken in conjunction with House

