**ARC7207/ARCH 8102 ADVANCED STUDIO IN LOW- COST HOUSING DESIGN [75 CH]**

**Description**

Low cost housing plays a significant contribution to the overall housing stock in a country, especially in the developing world. An understanding of its potential, characteristics and challenges are quite vital in order to be able to plan for and design it.

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**Objectives**

* 1. Students to appreciate the contribution of low-cost housing to the overall housing picture
	2. Student to understand the characteristics of low-cost housing
	3. To enable the student acquire skills of dealing with the challenges of low-cost housing

**Course Content**

1. Housing shapes, structures and evolution **[15 CU]**
2. Use of low-cost materials in design and construction **[15 CU]**
3. Appropriate technologies in housing **[15 CU]**
4. Evolution of housing needs **[15 CU]**
5. Cost and affordability **[15 CU]**

**Learning Outcomes**

At the end of the course the students should be able to:

1. Articulate the basic
comprehensive overview of the major components that affect low cost housing.
2. Analyse the intrinsic nature of low cost housing
3. Design houses that are responsive to the needs of the poor

**Teaching and Learning Pattern**

The course will be delivered through a mixture of lectures, seminars and group discussions. Lecture material will be supplemented by individual reading by students.

**Mode of Assessment**

Assessment will be done through continuous coursework and final written examination. Continuous assessment will include assignments, tests and practical exercises. A final examination will be offered at the end of the semester. Coursework will carry a total of 40% and a written examination will carry 60%.

**Mode of delivery**

Lectures/Seminars (30 hours), Practicals (0 hours). The total contact hours are 30

**Recommended Reference Books/ Literature**

Hard, R. and Hard K. (1985) [Build Your Own Low-Cost Log Home (Garden Way Publishing Classic)](http://www.amazon.com/Build-Low-Cost-Garden-Publishing-Classic/dp/0882663992/ref%3Dsr_1_2?s=books&ie=UTF8&qid=1300878822&sr=1-2)

Ruiz, F. P. (2005) [Building an Affordable House: A Smart Guide to High-Value, Low-Cost Construction](http://www.amazon.com/Building-Affordable-House-High-Value-Construction/dp/B002BWQ55O/ref%3Dsr_1_3?s=books&ie=UTF8&qid=1300878822&sr=1-3)

Wolfe, R. and Loveday, E. (1980) [Low Cost Pole Building Construction: The Complete How-To Book](http://www.amazon.com/Cost-Pole-Building-Construction-How-/dp/0882661701/ref%3Dsr_1_7?s=books&ie=UTF8&qid=1300878822&sr=1-7)

Nunan, J. (2009) [The Complete Guide to Alternative Home Building Materials & Methods: Including Sod, Compressed Earth, Plaster, Straw, Beer Cans, Bottles, Cordwood, and Many Other Low Cost Materials](http://www.amazon.com/Complete-Alternative-Building-Materials-Methods/dp/1601382456/ref%3Dsr_1_8?s=books&ie=UTF8&qid=1300878822&sr=1-8)

Roy, R. L. (2006) [Earth-Sheltered Houses: How to Build an Affordable...](http://www.amazon.com/Earth-Sheltered-Houses-How-Build-Affordable/dp/0865715211/ref%3Dsr_1_10?s=books&ie=UTF8&qid=1300878822&sr=1-10)

Friedman A. (2002) [The Adaptable House: Designing Homes for Change](http://www.amazon.com/Adaptable-House-Designing-Homes-Change/dp/0071377468/ref%3Dsr_1_14?s=books&ie=UTF8&qid=1300878822&sr=1-14)

House & Garden (2010) [Low-Cost Suburban Homes: Designs and Pictures of Suburban Houses That Have Been Built at Costs Ranging from $1,000 to $10,000, by Representative Architects](http://www.amazon.com/Low-Cost-Suburban-Homes-Representative-Architects/dp/1149027606/ref%3Dsr_1_18?s=books&ie=UTF8&qid=1300878968&sr=1-18)

Friedman A. (2005) [Homes Within Reach: A Guide to the Planning, Design, and Construction of Affordable Homes and Communities](http://www.amazon.com/Homes-Within-Reach-Construction-Communities/dp/0471469866/ref%3Dsr_1_19?s=books&ie=UTF8&qid=1300878968&sr=1-19)

Vaze , P. (2009) [The Economical Environmentalist: My Attempt to Live a Low-Carbon Life and What it Costs](http://www.amazon.com/Economical-Environmentalist-Attempt-Low-Carbon-Costs/dp/1844078086/ref%3Dsr_1_25?s=books&ie=UTF8&qid=1300879031&sr=1-25)