

## Eco-Building & LEED GA Training

This innovative course, suitable for all levels, has been designed to give architects, engineers, developers, or any other construction professional a complete and methodical understanding of sustainable development in construction.

### The Course

6 Seminars, each 2 hours, cover both theoretical concepts and practical applications ways to minimize and mitigate the impacts of buildings on the natural environment, and the health and well-being of its occupants.

Alternatively, the modules can be undertaken individually or in any combination. The eco-building design and techniques can be applied to all type of projects, whether residential, commercial, or other public buildings.

## Detailed Seminar Content

### **Seminar 1 - Thursday April 15, 2010**

- **Move towards Sustainable Development & Sustainable Construction:** Introduction to sustainable development, climate change, and the move towards sustainable construction
- **Introduction to Green Building Certifications:** Overview of BREEAM certifications in the UK, overview of LEED certification in the US, overview of Estidama guidelines in Abu Dhabi: similarities with BREEAM and LEED
- **Sustainable Sites, Transport, Ecology & Land-use:** Overview of what constitute sustainable sites, reduction of site water pollution, overview of how to protect and enhance the ecological value of a site and its biodiversity

### **Seminar 2 - Tuesday April 20, 2010**

- **Choice of Materials & Waste Management:** Importance of materials selection (lower impact materials, local and regionally-sourced materials, recycled or re-used materials, sustainably-sourced materials and timber, renewable materials), how to choose

between different building elements, low-impact finishes, waste management during construction and during the building's operation

- **Water Conservation:** Importance of water conservation, water-efficient devices and fixtures, rainwater collection in buildings, grey-water recycling, low-water irrigation and landscaping

### **Seminar 3 - Thursday April 22, 2010**

- **Energy-Efficiency – Lighting & HVAC:** Overview of energy-efficiency technologies / solutions suitable to hot climates (lighting and appliances, building services HVAC systems control and low-energy cooling, mechanical ventilation with heat recovery, low-environmental impact cooling, choice of refrigerants and refrigerant leak detection systems, sub-metering and BMS, thermal comfort, thermal zoning and controls, commissioning and building users guide)
- **Renewable Energies:** Overview of renewable energy technologies / solutions suitable to the Mediterranean and hot climates (solar water heating, photovoltaics, building integrated photovoltaics, solar thermal heating, solar thermal cooling, wind power, geothermal energy and ground-source heat pump, CHP, tri-generation and energy waste recovery)

### **Seminar 4 - Tuesday April 27, 2010**

- **Bio-climatic Design in warm / hot countries:** Basic design principles of bioclimatic houses in warm/hot countries, overview of natural ventilation and different techniques, insulation and U-values, air tightness, reducing the heat island effect, importance of natural daylighting, glazing, shading devices, green roofs

### **Seminar 5 - Thursday April 29, 2010**

- **Overview of LEED – Introductory session for LEED GA preparation:** Overview of LEED schemes and procedures (different LEED schemes under the new 2009 program, accreditation routes, managing the LEED documentation / submittal process throughout the project, credit interpretation rulings (CIR) and appeal processes, responsibilities between different design teams and client, standards that support LEED credits)

## Seminar 6 - Tuesday May 18, 2010

- **LEED GA Exam Preparation:** LEED GA specific exam preparation (overview of LEED GA exam structure, hints on what to pay attention at, sample exam questions, online resources useful to prepare the exam)

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### CPD Certificates

An individualized Continuous Professional Development (CPD) Certificate will be issued by EcoConsulting for each seminar session attended. Certificates of attendance can also contribute to the LEED GA or LEED AP Credentials Maintenance Program (CMP), or to demonstrate eligibility in order to register for the LEED GA exam

### Venue and Time

Hotel Monroe  
Kennedy Street, Solidere, Beirut (tel: 01-371122)

Registration & tea & coffee: **5:30pm**

Seminar start: 6pm

Seminar end: 8pm

*All seminars include a 10-minute coffee break after approximately 1 hour.*

### Price per Person

- Full series of seminars (6 sessions): \$450\*
- Per Seminar: \$100\*
- Student Discount: \$30\*\* per seminar

\* Discounts are available for bookings of 3 or more people

\*\* Student places are limited to 5/session and accepted on a first come first served basis upon reception of payment

### Booking

To book or for more information, please contact EcoConsulting (Lebanon) at 03-946591 or events@ecoconsulting.net