

## Sustainability, Climate Change & Environmental Knowledge

This track is for anyone who wants to learn more about sustainability through various topics. You will have a better understanding of climate change and the environment, as well as how to actively take steps to mitigate our environmental impacts, whether individually, at work, or collectively.

## Green Buildings & Sustainable Neighborhoods

This track has been designed to give architects, engineers, developers, landscapers, or any other construction professional a complete and methodical understanding of sustainable design & construction, with case studies & best-practice examples, and a preparation to green building certifications & LEED accreditations.

## The Circular Economy & Eco-Design

This track will open your eyes about the Circular Economy, and how we can contribute to accelerating the change towards it. You will learn about the principles of designing for circularity, meaning designing out waste & pollution, keeping products & materials in use within the production or biological cycles, and regenerating natural systems.

## Eco & Social Entrepreneurship

The aim of this track is to assist potential eco and/or social entrepreneurs in launching new environmental/social start-ups in a very practical way. You will learn how to convert step by step your Green or Social Business Ideas, or a new idea proposed during the workshops, into a sound & feasible business project and find solutions to the challenges of doing so along the way.



# Green Buildings & Sustainable Neighborhoods

## “Eco-Building, Sustainable Construction, BREEAM & LEED Green Associate Training”

This innovative Track, suitable for all levels, has been designed to give architects, engineers, developers, landscapers, or any other construction professional or student a complete & methodical understanding of green & sustainable design and construction. You will also be able to identify different measures that can be applied to buildings to reduce their impact in terms of eco-design, materials, energy, water and waste. Finally, this track will prepare you for the LEED Green Associate (GA) exam.

November	3	SE01	An intro to Sustainability, Climate Change, Ecological & Carbon Footprint, Green Construction: Why should we care?
	5	CE03	Introduction to Biomimicry
	9	GB01	Introduction to Green Building Certifications Overview of the NEEREA, LEA & other green construction financial incentives in Lebanon
	11	GB02	Sustainable Sites, Ecology & Land-use
	16	GB06	Bioclimatic Design in Warm Countries - PART I
	18	GB07	Bioclimatic Design in Warm Countries - PART II
	23	GB08	Choice of Materials & Waste Management - PART I
	25	GB08	Choice of Materials & Waste Management - PART II
	30	CE05	Meet the Architect! <i>Casa Batroun &amp; Bkerzay</i> Eco-projects
December	2	GB09	Introduction to Water Conservation
	7	GB03	Energy-Efficiency - HVAC systems
	9	GB04	Energy-Efficiency - Lighting Thermal Modeling & Case Studies
	14	GB05	Introduction to Renewable Energies
	16	GB10	Green Buildings Case Studies: <i>IC Elementary School</i> (LEED Gold) & <i>M1 Headquarters</i> (LEED Platinum)
	21	GB11	Overview of LEED, the USGBC, and GBCI LEED GA Exam Preparation - PART I
	22	GB12	LEED GA Exam Preparation - PART II

\* All seminars will start at 5pm & will last 1 ½ to 2 hours



Most of the seminars in the Green Building & Sustainable Neighbourhood Track will be given by the [EcoConsulting team](#)

## The Green Building Track

Following successful trainings & conferences in the UK since 2003, EcoConsulting has accumulated a track record in giving and animating seminars, workshops, conferences & activities on eco-buildings and sustainability. With over 15 years of experience as consultants in environmentally-friendly buildings, and having worked on the majority of the certified BREEAM & LEED green buildings in Lebanon, our seminars will provide the attendees with best practice solutions and technologies, in-depth knowledge on green construction, and plenty of real case examples from the projects we have worked on: check our [newsletter](#) and [website](#) for some.

16 Seminars, each 1.5 to 2 hours, cover both theoretical concepts & practical applications on ways to minimize and mitigate the impacts of buildings on the natural environment, as well as enhance the health & well-being of buildings' occupants. **Case studies** have also been integrated into the Track's program to enrich the course with practical examples of projects in Lebanon.

In addition to the regular presentations, during some of the seminars we invite specialist professionals in the construction industry to intervene & present specific eco-friendly solutions or products.

## The Certificate

The seminars can be undertaken individually or in any combination, and count each for 1 UNIT at the Circular Hub.

You will be able to obtain the “**Green Buildings & Sustainable Neighbourhoods**” Certificate, by attending a series of sessions related to the Green building & Sustainable Neighborhood Track and securing a minimum of 12 Units.

Most eco-building design recommendations and techniques can be considered & applied to all types of projects, whether residential, commercial, institutional, or other public buildings.

This Certificate can also contribute to the LEED Green Associate (GA) or LEED Accredited Professional (AP) Credentials Maintenance Program (CMP), or to demonstrate eligibility in order to register for the LEED GA exam.

## The Seminars

### SE01 - Tuesday, Sept 15<sup>th</sup>

#### **An intro to Sustainability, Climate Change, Ecological & Carbon Footprint, and Green Construction: Why should we care?**

Overview of sustainable development and the three pillars of sustainability, how is Climate Change affecting us, and why should we care? What is our Ecological Footprint & the overshoot day? Do you know your individual Carbon Footprint, are there some measures to reduce it? Why we should move to greener construction & energy-efficient, healthier buildings?

*Click [here](#) for the full seminar details.*

### CE03 - Thursday, Nov 5<sup>th</sup>

#### **Introduction to Biomimicry**

Biomimicry is a Sustainable Design Methodology and approach to innovation that seeks sustainable solutions to human challenges by emulating nature’s time-tested patterns & strategies. The core idea is that nature has already solved many of the problems we are grappling with. Animals, plants, and microbes are the consummate engineers. This seminar will give an overview of Biomimicry with some of its applications.

*This seminar is in collaboration with theOtherDada.*

*Click [here](#) for the full seminar details.*

### GB01 - Monday, Nov 9<sup>th</sup>

#### Introduction to Green Building Certifications

- Overview of BREEAM certifications in the UK, overview of LEED certification in the US, comparison between BREEAM and LEED; overview of ARZ in Lebanon ○

#### Overview of the NEEREA, LEA & other green construction financial incentives in Lebanon

- Intent, benefits, current interest rates, procedure (how to apply) for each of these loans ○

*Click [here](#) for the full seminar details.*

### GB02 - Wednesday, Nov 11<sup>th</sup>

#### Sustainable Sites, Ecology & Land-use

- Overview of what constitutes sustainable sites (including criteria in BREEAM & LEED) & measures to reduce site water pollution. Overview of how to protect & enhance the ecological value of a site and its biodiversity. ○

Introduction to the different types of green roofs & their various benefits.

*Click [here](#) for the full seminar details.*

### GB06 & GB07 - Monday, Nov 16<sup>th</sup> & Wednesday, Nov 18<sup>th</sup>

#### Bio-climatic Design in warm / hot countries- Part I & II

- Basic design principles of bioclimatic houses in warm/hot countries. The importance of insulation, air tightness, reducing the heat island effect, balance between natural daylighting and overheating, choice of glazing, shading devices, and usage of green roofs. ○

Overview of natural ventilation & cross-ventilation and various different passive ventilations techniques, including solar chimneys, wind towers, and provincial wells.

*Click [here](#) for the full seminar details.*

### GB08 - Monday, Nov 23<sup>rd</sup> & Wednesday, Nov 25<sup>th</sup>

#### Choice of Materials & Waste Management - Part I & II

- Importance of materials selection in construction (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 and low-impact finishes. The importance of waste management during construction and during the building's operation.

*Click [here](#) for the full seminar details.*

#### CE05 – Monday, Nov 30<sup>th</sup>

Meet the Architect with Maha Nasrallah!

Casa Batroun, a small private house renovated and extended in an eco-friendly manner, which achieved the BREEAM Excellent rating and is the 1<sup>st</sup> project to be BREEAM-certified in Lebanon, and *1<sup>st</sup> BREEAM Excellent rating in the Middle-East*. The detailed presentation will describe the bio-climatic design; the choice of materials; as well as all the energy-efficiency, water conservation, and sustainability features of the house.

EcoBkerzay, the first lodging project in the country to achieve a BREEAM or LEED certification and one of the highest ratings (Very Good) in Lebanon under BREEAM International 2016.

An overview of the different environmental techniques & solutions that have been integrated into the project will be presented.

[Click here for the full seminar details.](#)

#### GB09 - Wednesday, Dec 2<sup>nd</sup>

Introduction to Water Conservation in Buildings

Importance of water conservation: Choice of water-efficient devices and fixtures, introduction to rainwater collection in buildings, grey-water recycling for usage in buildings or irrigation, low-water irrigation & landscaping.

[Click here for the full seminar details.](#)

#### GB03 - Monday, Dec 7<sup>th</sup>

**Energy-Efficiency - HVAC systems**

Overview of energy-efficiency technologies / solutions suitable to hot climates, 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, and commissioning.

[Click here for the full seminar details.](#)

#### GB04 - Wednesday, Dec 9<sup>th</sup>

Energy-Efficiency - Lighting

Overview of the performance characteristics of lighting systems, different types of lighting, lighting controls, light pollution and guidelines for a good lighting design that reduces energy consumption and light pollution.

Thermal Modeling & Case Studies

A full dynamic 3D model of different case studies - including the objectives of the analysis, modelling procedure, results, and conclusions.

[Click here for the full seminar details.](#)

### GB05 - Monday, Dec 14<sup>th</sup>

#### Introduction to 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).

*Click [here](#) for the full seminar details.*

### GB10 - Wednesday, Dec 16<sup>th</sup>

#### Green Buildings Case Studies

IC Elementary School & M1 Headquarters

First projects in Lebanon to achieve respectively the *LEED Gold and LEED Platinum certificates*; presentation includes each of the new buildings' green features (from each credit category within LEED).

*Click [here](#) for the full seminar details.*

### GB11 & GB12 - Monday, Dec 21<sup>st</sup> & Tuesday, Dec 22<sup>nd</sup>

Overview of LEED, the USGBC, and GBCI  
LEED Green Associate (GA) exam preparation

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

LEED Green Associate Mock Exam

LEED GA specific mock exam questions & review of the correct answers

*Click [here](#) for the full seminar details.*

## Pricing

### Regular fees

- \* For Employed / Self-Employed: 720,000LL
- \* For Students / Unemployed / NGOs: 480,000LL

### Current fees with a 15% Discount

- \* For Employed / Self-Employed: 620,000LL
- \* For Students / Unemployed / Local NGOs: 400,000LL

*In support to the current Lebanese crisis, 10% of the webinar revenues will be collected and donated to BEDCO-Bebel Dahab- a construction and rehabilitation social initiative to empower Tripoli's marginalised youth, powered by the NGO MARCH. BEDCO is currently assisting in the reconstruction efforts of Beirut. Please let us know should you wish to add a personal donation to BEDCO.*

### Scholarships

We know that the current situation may be very hard for some of you, we are thus offering up to **5 free registrations** provided we have enough participants to run the course. If you really can't afford our fees right now but still want to take part, please reach out via email with a short explanation of why this Certificate and its qualifications is important for you. We will allocate the free registrations on a first-come first-serve basis.

## Registration & Practical Info

- \* All Circular Hub webinars will be hosted online through Microsoft Teams; we will provide you gradually with login instructions prior to each seminar.
- \* All seminars & workshops start at 5:00 pm, and last between 1.5 to 2 hours each.
- \* Payment options are by Cash, Check, Bank Transfer or OMT; further details will be given upon registration.
- \* To book or for more information, please contact EcoConsulting at [rouba@ecoconsulting.net](mailto:rouba@ecoconsulting.net) or via WhatsApp or call at +961 79 123 523.

Follow us on Facebook, Insta & LinkedIn (by clicking all the below icons) to receive up-to-date information about all our events.

Thank you for spreading the word about the Circular Hub to anyone who may be interested around you!

