

# 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

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.

Jul	14	SE01	An intro to Sustainability, Climate Change, Ecological & Carbon Footprint, Green Construction: Why should we care?
	16	CE03	Part I - Introduction to Biomimicry (TBC)
		GB01	Part II - Introduction to Green Building Certifications
	21	GB08	Choice of Materials & Waste Management - PART I
	23	GB08	Choice of Materials & Waste Management - PART II
	28	GB02	Sustainable Sites, Ecology & Land-use
	30	GB05	Introduction to Renewable Energies
Aug	4	GB06	Bioclimatic Design in Warm Countries - PART I
	6	GB07	Bioclimatic Design in Warm Countries - PART II
	11	CE05	Casa Batroun & Bkerzay Eco-projects
	13	GB03	Energy-Efficiency - HVAC systems
	18	GB09	Introduction to Water Conservation
	20	GB04	Energy-Efficiency - Lighting Thermal Modeling & Case Studies
	25	GB10	Green Buildings Case Studies:  IC Elementary School (LEED Gold) & M1 Headquarters (LEED Platinum)
	27	GB11	Overview of LEED, the USGBC, and GBCI LEED GA Exam Preparation - PART I
Sept	1	GB12	LEED GA Exam Preparation - PART II

<sup>\*</sup> All seminars will start at 11am & will last approximately 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 <u>newsletter</u> and <u>website</u> for some.

16 Seminars, each approximately 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 - Wednesday, July 14th

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 - Friday, July 16th

#### 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 the Other Dada.

Click here for the full seminar details.



provincial wells.

Click here for the full seminar details.

# GB01 - Friday, July 16th Introduction to Green Building Certifications Overview of BREEAM certifications in the UK, overview of LEED certification in O the US, comparison between BREEAM and LEED; overview of ARZ in Lebanon O Click here for the full seminar details. GB08 - Wednesday, July 21st & Friday 23rd 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. GB02- Wednesday, July 28th 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. GB02 - Friday, July 30<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, trigeneration and energy waste recovery). Click here for the full seminar details. GB05 - Wednesday, Aug 4<sup>th</sup> & Friday, Aug 6<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



# CE05 - Wednesday, Aug 11th

# Casa Batroun & Bkerzay Eco-projects!

Casa Batroun, a small private house renovated and extended in an ecofriendly 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.

# GB03 - Friday, Aug 13<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.

# GB09 - Wednesday, Aug 18th

#### 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.

# GB04 - Friday, Aug 20<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 <u>here</u> for the full seminar details.



# GB10 - Wednesday, Aug 25<sup>th</sup>

# Green Buildings Case Studies

IC Elementary School & M1 Headquarters

First projects in Lebanon to achieve respectively the *LEED Gold and LEED*O 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 - Friday, Aug 27th & Wednesday, Sept 1st

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

#### **Current fees**

- \* For Employed / Self-Employed: 1,500,000LL (or \$385 USD)
- \* For Students / Unemployed / NGOs: 1,000,000LL (or \$260 USD)

# **Financial Support and Scholarships**

If you are unable to currently afford the registration fees, please email us with how much you are able to pay for such a training. We will provide additional financial support with a few limited scholarships.

# Registration & Practical Info

- \* All Circular Hub webinars will be hosted <u>online</u> through Microsoft Teams; we will provide you gradually with login instructions prior to each seminar.
- \* All seminars & workshops start at 11:00 am, and last approximately 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 <a href="mailto:rouba@ecoconsulting.net">rouba@ecoconsulting.net</a> 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!





