



SUSTAINABLE BUILDING DESIGN AND ENGINEERING

Programma del corso ex Art. 10
(Approvato dal CICS in Ingegneria Edile del 27.04.2021 e successivamente modificato
al CICS del 5.11.2021)

1° semestre, aa 2021-2022 -Modalità telematica – Aula su TEAMS

(corso rivolto agli studenti dei Corsi di Laurea e dei Corsi di Laurea Magistrale)

12 Novembre 2021 - 16:00-18:30

Climate Change I parte (2,5 ore)

Climate change: an environmental, social, and political challenge

Rossella Corrao, MArch (Hons), PhD, Full Prof. in Architectural Engineering, University of Palermo, IT

Embodied carbon: how much it affects the construction process and management of buildings

Daniela Azzaro, MEng CEng MICE, Project & Design Manager, Associate @Arup Italy, Milan, IT

15 Novembre 2021 - 15:30-18:30

Climate Change II parte (3,5 ore)

JRL Group DfMA Strategy: Design, Manufacture and Buildability for Innovative Envelope Systems

Emanuele Calabrò, MEng (Hons) PGDip CEng MSFE MCIBSE, Head of Engineering @Midgard Ltd, London, UK

Energy and Climate 2030 in Italy,

Enrico Genova, MS Bldg Eng-Arch, PhD, Researcher @ENEA, Bologna Research Centre - Energy Efficiency Unit Department (DUEE), BO, IT

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26 Novembre 2021 - 15:00-19:30

Strategies for mitigating microclimate (4,5 ore)

Multiscale methodology for evaluating the microclimate effects of vegetation on the built environment

Rossella Corrao, MArch (Hons), PhD, Prof. in Architectural Engineering, University of Palermo, IT

The challenges of sustainability in UAE. SWA group's experience: "A Park in the Tower" and EXPO 2020

Sergio Lima, MArch, Instr. @AAU, Associate Principal @ SWAgroup, San Francisco, CA, USA

Sustainability pavilion @ EXPO 2020 and Museum of the future in Dubai

Simone Miriana, MSc (Hons) MEng CEng MCIBSE, Associate @Eckersley O'Callaghan, London, UK

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3 Dicembre 2021 - 14:30-19:00

Sustainable buildings in Mediterranean and sub-tropical areas (4,5 ore)

Water and vegetation in traditional Mediterranean architecture

Calogero Vinci, MEng, PhD, Associate Prof. in Architectural Engineering @University of Palermo, IT



Natural Ventilation in high-rise buildings

Humera Mughal, MS Arch Eng, BS Bldg Arch Eng, PhD, Assistant Prof. @Prince Sultan University, Riyadh, SA

Renovation wave: technical and economic solution for retrofitting buildings

Enrico Genova, MEng-Arch, PhD, Researcher @ENEA, Bologna Research Centre - Energy Efficiency Unit Department (DUEE), Bologna, IT

Paddington Gardens in London: A new facade solution for Energy Design and Fire Engineering Compliance

Emanuele Calabrò, MEng (Hons) PGDip CEng MSFE MCIBSE, Head of Engineering @Midgard Ltd, London, UK

10 Dicembre 2021 - 14:30-19:30

Energy Efficiency of the Building Envelope and Design of Innovative Components (5 hours)

Climate resilient facades

Simone Miriana, MSc (Hons) Meng CEng MCIBSE, Associate @Eckersley O'Callaghan, London, UK

DfMA - Design for Manufactory and Assembly e DfD - Design for Disassembly

Daniela Azzaro, MEng CEng MICE, Project & Design Manager, Associate @Arup Italy, Milan, IT

BIV and BIPV innovative products

Rossella Corrao, MArch (Hons), PhD, Full Prof. in Architectural Engineering, University of Palermo, IT

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17 Dicembre 2021 - 14:30-19:30

Quality of Sustainable Buildings (5 hours)

Circular Economy, principles and applications in building construction

Daniela Azzaro, MEng CEng MICE, Project & Design Manager, Associate @Arup Italy, Milan, IT

Energy Performance Certificates worldwide

Enrico Genova, MEng-Arch, PhD, Researcher @ENEA, Bologna Research Centre - Energy Efficiency Unit Department (DUEE), Bologna, IT

LEED and the outdoors. Guthrie Green in Tulsa and other case studies

Sergio Lima, MArch, Instr. @AAU, Associate Principal @ SWAgroup, San Francisco, CA, USA

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Il corso sarà svolto su piattaforma Teams ed è strutturato in 25 ore frontali a cui segue lo studio individuale. Alla fine del corso, sarà organizzata una verifica dal Docente Responsabile per gli studenti che lo hanno frequentato, al fine di proporre l'attribuzione di 3 CFU come "ex art. 10".

Prof. Lidia La Mendola

Coordinatore del CICS in Ingegneria dei Sistemi Edilizi

Prof. Giuseppe Campione

Coordinatore del CICS in Ingegneria Civile e Delegato
all'Organizzazione di "Altre attività Formative"
per il CLM in Ingegneria dei Sistemi Edilizi