



ACME Seminar

MILANO - GRAZ

Advanced Construction Management and Economics Seminar

Design of self-sufficient prefabricated modular units

Milano week – 12.03.2020 - 17.03.2020
(Design and Technologies)

Graz week - 23.04.2020 - 28.04.2020
(Management and Construction)

Fifth Edition - 2020

Organized and coordinated

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ACME Seminar

MILANO - GRAZ

Advanced Construction Management and Economics Seminar

Design of self-sufficient prefabricated modular units

Milano week – 12.03.2020 - 17.03.2020

(Design and Technologies)

- **Lectures (1 day)**
- **Site visits (1 day)**
- **Workshop (3 days)**
- **Workshop midterm presentation**

The lectures will aim to guide the students towards the development of the workshop design theme. In this regard, each working group will face a theme with the aim of developing a preliminary design related to the following topic:

study and design of self-sufficient prefabricated modular units, transportable and transformable. The units can be used for post-emergency events and/or for the installation in extreme climatic conditions and/or for temporary events. The units should be energy close to zero or self-sufficient (if needed).

The students will optimize the proposed concept, taking into account the materials properties, as well as the prefabrication level, the building services integration, the context of use, etc. focusing on the use of local technologies/industries and respect of the local resources.

The output is a modular unit preliminary design concept that will be developed during the 2nd session in Graz.

Graz week - 23.04.2020 - 28.04.2020

(Management and Construction)

- **Lectures (1 day)**
- **Site visits (1 day)**
- **Workshop (3 days)**
- **Workshop final presentation**

The lectures will aim to guide the students towards the development of the construction management process (Project Management, Operative Maintenance, Life Cycle Cost, Life Cycle Assessment, ...).

The workshop will aim to deepen the issues related to the definition of the “optimal” technical solution during the different phases of the self-sufficient prefabricated modular units design process (design, construction, maintenance) and related costs. There will be a final presentation with a general discussion of the proposed solutions, from a technical and economic point of view.

The site visits, during the two weeks, are focused on deepening the lectures topics.



ACME Seminar

MILANO - GRAZ

Advanced Construction Management and Economics Seminar

Students enrolled in one of the following courses:

Management of Built Environment (4)

Ingegneria dei Sistemi Edilizi (4)

Ingegneria Edile-Architettura (4)

Building and Architectural Engineering (4)

The selection procedure will be based on:

- curriculum vitae;
- credits and weighted average of marks, regularly registered by the deadline of the call, that will be extracted from the digital archive of Politecnico di Milano. For the MSc students that have not registered at least three examinations by the deadline of the call, the bachelor's degree graduation exam admission weighted average of marks will be considered;
- motivation letter.

Students will be required to pay approximately € 320 due to face the costs to cover food, travel and accommodation in Graz (Austria).

n. crediti /credits

3

Equivalenti al tirocinio/equivalent to internship

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ACME Seminar

MILANO - GRAZ

Advanced Construction Management and Economics Seminar

Design for maintainability

Milano week – 28.03.2019 - 02.04.2019
(Design and Technologies)

Graz week - 25.04.2019 - 30.04.2019
(Management and Construction)

Fourth Edition - 2019

Organized and coordinated

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ACME Seminar

MILANO - GRAZ

Advanced Construction Management and Economics Seminar

Third Edition - 2018

Building technologies: solutions and prefabrication

Organized and coordinated

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ACME Seminar

MILANO - GRAZ

Advanced Construction Management and Economics Seminar

2017 Second Edition – Advanced Façades



Organized and coordinated

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2016 First Edition – Construction Management



Agreement on strategic partnership signed on November 21st, 2014, between Politecnico di Milano and Graz University of Technology