

PRESENTATION OF THE COURSE

The course aims at exploring techniques and methods of intervention in humanitarian emergency in all its forms (conflicts, natural disasters, immediate/chronic and post-emergency), showing the different approaches in the technical operations.

An overview of differences in the approach of development and emergency projects will be presented specifying socio-political, legal, economic, health and environmental issues. Participants will study appropriate technologies for water, sanitation and waste management in emergency situations through the presentation of case studies and teamwork.

Finally, an appropriate approach for action planning of environmental services will be presented from emergency towards sustainable development.

The course is addressed to:

- people working in International Development Cooperation;
- PhD students;
- students, researchers and assistant professors and all interested people.

Participation is free of charge but subordinated to regular **registration** by sending an e-mail to the organizing secretariat writing full name, affiliation, address, e-mail and phone within the **19th of June 2015**.

A maximum number of 30 people will be accepted.

The course language is English except for the Monday morning session which will be in Italian.

A certificate of attendance will be issued for students attending at least 75% of the course.

Scientific secretariat

Sabrina Sorlini, Mentore Vaccari
phone: +39 030371 1299/1300; e-mail: sorlini@ing.unibs.it

Organizing secretariat

Andrea Perteghella, Lavinia Di Francesco,
Marta Domini, Silvia Gibellini
phone: +39 0303711323; e-mail: cetamb@ing.unibs.it

www.ing.unibs.it/cetamb/

CeTAmb LAB

CeTAmb LAB aims at conducting research on appropriate technical solutions to environmental issues in Low and Middle Income Countries. CeTAmb LAB collaborates with partners such as NGOs or universities, to carry out research and education activities. Nowadays, a number of projects has been developed on water and sanitation and energy recovery in several Countries (Kenya, Senegal, Burkina Faso, Gaza Strip, Mozambique, Colombia, Peru, Brazil, Bosnia and Herzegovina, Cameroon, Chad and others).

GETTING THERE

by car

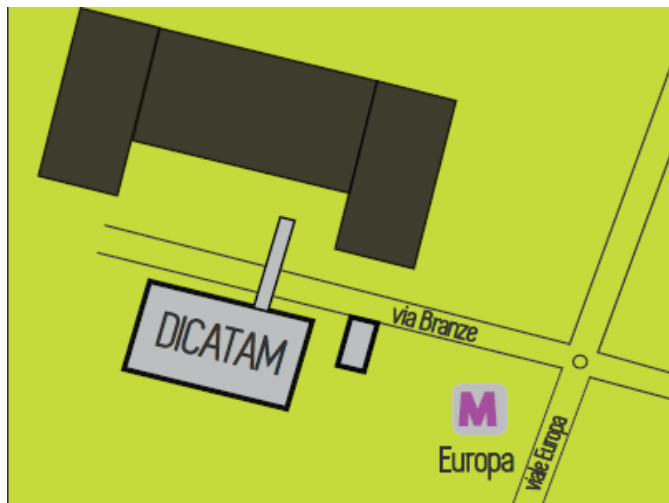
Highway A4 Milano-Venezia

- from Milano, exit A4 at "Brescia Ovest" and follow indications to "stadio" (stadium) or "ospedale" (hospital) (North direction). Pass the hospital and turn right from via Triumplina to via Branze

- from Verona or Piacenza, exit A4 at "Brescia Centro" and follow indications to "stadio" or "ospedale".

by train

At Brescia station take the metro towards "Prealpino", stop at "Europa" then see the map below.



CeTAmbLAB

Research laboratory for Appropriate
Technologies for Environmental
Management in resource-limited Countries

5th International Summer School

**Water, sanitation and waste
management in humanitarian
crises:
appropriate technologies and
planning towards
development**

29th June - 3rd July 2015

Coordinators:

Prof. Carlo Collivignarelli,

Prof. Sabrina Sorlini, Eng. Mentore Vaccari

University of Brescia—DICATAM

Via Branze 43 Brescia (Italy)

Room B.05

*Under the
patronage of*



LE UNIVERSITÀ
PER EXPO 2015
COMITATO SCIENTIFICO
DEL COMUNE DI MILANO



Water, sanitation and waste management in humanitarian crises: appropriate technologies and planning towards development

COURSE PROGRAMME

Monday 29th June

09:15 Participants registration

09:45 Welcome

Morning session

10:00 Presentation of the Summer School (*C. Collivignarelli*)

10:15 Appropriate approaches for water, sanitation and waste management in emergencies:

- Social/Anthropological aspects (*A. Casella*)
- Health aspects (*C. Castelli*)
- Economic aspects (*L. Viganò, D. Castellani*)
- Environmental aspects (*S. Sorlini*)

12:15 Discussion

12:45 Lunch

Afternoon session

14:15 Presentation of the researches developed in the "Appropriate Methods and Technologies for International Development Cooperation" PhD course.

The experiences of the PhD students

Technological curriculum

- *A. Pollmann Gomez*: Analysis of water poverty and protection of water resources in Vilankulo city, Mozambique
- *F. De Nardo*: Appropriate technologies for the production of organic fertilizer from organic residues in occupied Palestinian territories
- *L. Di Francesco*: Design of appropriate sanitation facilities in the urban area of Bignona (Senegal)
- *M. Domini*: Integrated and sustainable environmental sanitation concepts in the urban area of Iringa (Tanzania)
- *A. Selmi*: Wastewater reuse in the agricultural sector in Gaza Strip
- *A. Vidoni*: Water supply management in rural areas of Burkina Faso
- *F. Zambetti*: Recovery and management of Waste of Electric and Electronic Equipment (WEEE) in resource-limited countries

Health curriculum

- *C. Poppi*: Parasites prevalence in rural community in Ecuador
- *S. Odolini*: Clinical trials and surveillance protocols in the import pathologies
- *S. Bigoni*: Sexually transmitted infection in the migrant population
- *C. Cerini*: Maternal and child health in the Morrumbene district (Mozambique)

16:30 Conclusions

Tuesday 30th June

(speaker: *B. Reed*)

Morning session

9:00 - 12:30 Introduction to the humanitarian crisis and emergency in developing countries in the water and sanitation sector:

- SPHERE guidelines and WHO Technical notes for emergency
- Case studies

12:45 Lunch

Afternoon session

14:00 - 17:30 Appropriate technologies and strategies in the water and sanitation sector in humanitarian crises:

- Theoretical aspects
- Case studies
- Team work

Wednesday 1st July

(speaker: *G. Bolzoni*)

Morning session

9:00 - 12:30 Appropriate technologies and strategies in the drinking water sector:

- Hygiene promotion during the emergencies
- Theoretical aspects on water quality and treatments
- Exercises

12:45 Lunch

Afternoon session

14:00 - 17:30

- Exercise: water treatment
- Case studies: Storage of water during the emergencies
- Team work

Thursday 2nd July

(speaker: *T. Tudor*)

Morning session

9:00 - 12:30 Appropriate technologies and strategies for special solid waste management in humanitarian crises :

- Key risks pathways and how the risks should be managed
- Short, medium and long-term waste management options

12:45 Lunch

Afternoon session

14:00 - 16:30

- Stakeholder engagement
- Case studies

Friday 3rd July

(speaker: *S. Barakat*)

Morning session

9:00 - 12:30 Interventions in emergency and reconstruction phase

- The social-political scenarios in humanitarian crises
- Anthropological, economic, institutional aspects

12:45 Lunch

Afternoon session

14:00 - 17:30 Reconstruction and urban planning in post-emergencies scenarios:

- Case studies
- Team work

Extra activities:

- Visit to the CeTAmb LAB laboratory of appropriate technologies, DICATAM Department
- Wednesday 1st July at 18:00: Visit to the old town center of Brescia, organized with the support of FAI Brescia

SPEAKERS

S. Barakat	University of York (UK)
G. Bolzoni	Italian Red Cross - IRC (IT)
A. Casella	UCSC , Brescia (IT)
D. Castellani	University of Bergamo (IT)
C. Castelli	University of Brescia (IT)
C. Collivignarelli	CeTAmb LAB, University of Brescia (IT)
B. Reed	Retired public health engineer (UK)
S. Sorlini	CeTAmb LAB, University of Brescia (IT)
T. Tudor	University of Northampton (UK)
L. Viganò	University of Bergamo (IT)
PhD Students:	
S. Bigoni	University of Brescia (IT)
C. Cerini	University of Brescia (IT)
F. De Nardo	CeTAmb LAB, University of Brescia (IT)
L. Di Francesco	CeTAmb LAB, University of Brescia (IT)
M. Domini	CeTAmb LAB, University of Brescia (IT)
S. Odolini	University of Brescia (IT)
A. Pollmann Gomez	CeTAmb LAB, University of Brescia (IT)
C. Poppi	University of Brescia (IT)
A. Selmi	CeTAmb LAB, University of Brescia (IT)
A. Vidoni	CeTAmb LAB, University of Brescia (IT)
F. Zambetti	CeTAmb LAB, University of Brescia (IT)