

## Presentation of the course

The course aims at exploring issues related to environment and health, introducing appropriate solutions for drinking water, wastewater and solid waste safe management in resource-limited countries.

An overview of environmental and sanitary problems will be presented, exploring innovative and technical solutions currently adopted in the world through the presentation of case studies and teamwork, highlighting social, health, economic and environmental aspects.

During the course, we will discuss about international cooperation opportunities and projects' monitoring, evaluation and review.

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 **24<sup>th</sup> of June 2017**.

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  
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e-mail: [sabrina.sorlini@unibs.it](mailto:sabrina.sorlini@unibs.it)/[mentore.vaccari@unibs.it](mailto:mentore.vaccari@unibs.it)

### **Organizing secretariat**

Marta Domini  
phone: +39 030371 1302; e-mail: [cetamb@unibs.it](mailto:cetamb@unibs.it)

## CeTamb LAB

CeTamb LAB promotes research on appropriate technical solutions for environmental management in Low and Middle Income Countries. CeTamb LAB collaborates with partners such as NGOs and universities, to carry out researches, projects and educational activities. Several projects have been developed on water, 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 HERE

by car

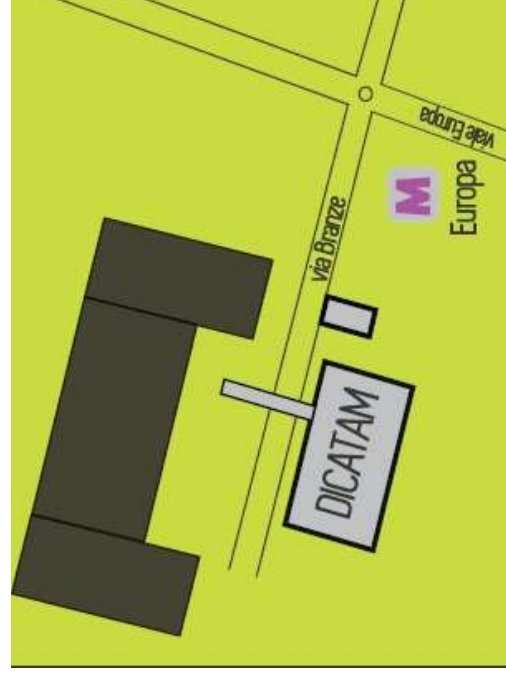
Highway A4 Milano-Venezia

- 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 (DICATAM)



UNIVERSITÀ  
DEGLI STUDI  
DI BRESCIA

CeTamb LAB

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

## 7<sup>th</sup> International Summer School

**Managing environmental  
and health risks:  
the impacts of water and  
waste treatment  
technologies in low and  
middle income countries**

**3<sup>rd</sup> July - 7<sup>th</sup> July 2017**

Coordinators:

Prof. Carlo Collivignarelli,

Prof. Sabrina Sorlini, Eng. Mentore  
Vaccari

University of Brescia—DICATAM  
Via Branze 43 Brescia (Italy)  
Room B.0.5

<http://cetamblab.unibs.it/>

# Managing environmental and health risks: the impacts of water and waste treatment technologies in low and middle income countries

## Programme

Monday 3<sup>rd</sup> July

### **Morning session (09:00 - 13:00)**

- 09:00 Participant registration
- 09:30 Welcome
- 10:00 Presentation of the Summer School (C. Collivignarelli)
- 10:15 Relation between health and environment and the role of appropriate technologies in water, sanitation and waste management sectors:
  - Health aspects (F. Castelli)
  - Environmental aspects (S. Sorlini)
  - Economic aspects (D. Castellani)
  - Social aspects (A. Fiorencis)

12:15 Discussion  
12:45 Lunch

### **Afternoon session (14:00-18:00)**

- 14:00 Opportunities for research and work in the international cooperation (M. Ali)
- 15:00 Presentation of the researches developed in the "Appropriate Methodologies and Techniques for International Development Cooperation" PhD curriculum (M. Vaccari)

### **The experiences of the PhD students:**

- Planning approaches for improving the sanitation system in peri-urban wards of Iringa, Tanzania (M. Domini)
- Assessment of water resources for the Municipality of Dori, Burkina Faso (A. Vidoni)
- Waste collection and management in developing countries: a case study in Jordan (S. Gibellini)
- Solid waste management assessment in Tulkarem, West Bank (F. Villa)
- Appropriate solutions for the groundwater treatment and reuse in Senegal (B. Dame)

- Health track  
Analysis of the educational environment and attitudes of healthcare students to the international development cooperation in two universities of northern Italy (L. Praticò)
- Health implications in emergencies (V. Marchese)
- Health implications in low and middle income countries (V. Quaresima)

17:30 Conclusion

Tuesday 4<sup>th</sup> July

(Speaker: Daniele Lantagne)

### **Appropriate technologies and strategies for DRINKING WATER management**

- 9:00 - 13:00 Introduction to health and environmental problems related to drinking water management in developing countries & appropriate technologies
- 14:00 - 17:30 Assessment and evaluation of health impacts and water quality improvement: theoretical aspects, case studies, working groups

Wednesday 5<sup>th</sup> July

(Speaker: Bob Reed)

### **Appropriate technologies and strategies for environment and health safeguard in the SANITATION sector**

- 9:00 - 13:00 Introduction to health and environmental problems related to wastewater management in developing countries & appropriate technologies

- 14:00 - 17:30 Assessment and evaluation of health impacts related to sanitation: theoretical aspects, case studies, working groups

Tuesday 6<sup>th</sup> July

(Speakers: Mansoor Ali & Terry Tudor)

### **Sustainable WASTE MANAGEMENT: appropriate technologies for safeguarding the health and environment**

- 9:00 - 13:00 Introduction to health and environmental problems related to waste management in developing countries. Appropriate technologies and project preparation in the solid waste sector.

- 14:00 - 17:30 Assessment and evaluation of health impacts related to solid waste management: theoretical aspects and case studies  
*Talk and Discussion: Informal Systems of Waste Separation and Recycling - What is New?*

Friday 7<sup>th</sup> July

(Speakers: Mansoor Ali & Terry Tudor)

### **Project evaluations and reviews**

- 9:00 - 13:00 Project and Programme Cycles, Results Frameworks and Logframes, Project Indicators and monitoring, Monitoring and learning systems, Project Reviews and Evaluations: key steps and case studies.
- 14:00 - 17:00 Assessment and evaluation of health impacts related to solid waste management: working groups
- Visit to the CeTamb LAB Laboratory of appropriate technologies, DICATAM
- Visit to the old town center of Brescia, organized with the support of FAI Brescia

### **Extra activities:**

### **Speakers**

M. Ali	Bond UK (UK)
F. Castelli	University of Brescia (IT)
C. Collivignarelli	CeTamb LAB, University of Brescia (IT)
D. Castellani	University of Brescia (IT)
M. Domini	CeTamb LAB, University of Brescia (IT)
A. Fiorencis	Università Cattolica del Sacro Cuore, Brescia (IT)
D. Lantagne	Tufts University (USA)
B. Reed	WASH and emergency expert (UK)
S. Sorlini	CeTamb LAB, University of Brescia (IT)
T. Tudor	University of Northampton (UK)
M. Vaccari	CeTamb LAB, University of Brescia (IT)
<b>PhD Students</b>	
B. Dame	CeTamb LAB, University of Brescia (IT)
S. Gibellini	CeTamb LAB, University of Brescia (IT)
V. Marchese	University of Brescia (IT)
L. Praticò	University of Brescia (IT)
V. Quaresima	University of Brescia (IT)
A. Vidoni	CeTamb LAB, University of Brescia (IT)
F. Villa	CeTamb LAB, University of Brescia (IT)