

# MOOC “Introduction to Public Health Engineering in Humanitarian Contexts”



The International Committee of the Red Cross (ICRC), Eawag-Sandec and École polytechnique fédérale de Lausanne (EPFL) have launched the free online course “Introduction to Public Health Engineering in Humanitarian Contexts”.

## About the course

The world is facing unprecedented humanitarian needs. Today’s humanitarian crises tend to be greater in number, often occur in urban settings, are longer in duration and broader in regional impact than in the past. Such crises can disrupt essential services, such as water supply or sanitation, put the health of large populations at risk, and cause immense human suffering. The field of public health engineering addresses these challenges: In humanitarian emergencies, public health engineers and technical specialists in water, sanitation, energy, environment and related fields step in to find solutions for diverse technical challenges threatening public and environmental health. Such specialists are increasingly needed – worldwide.

Why does public health engineering matter so much in humanitarian crises? And how do its related activities play out in such complex environments? You can find the answers to these and many more questions in this MOOC, “Introduction to public health engineering in humanitarian contexts”; a joint project of ICRC, Eawag-Sandec and the EPFL. This 5-week MOOC was first launched November 6 2017. In case you missed the first round, don’t worry: The course will be repeated every four weeks. Find further information and register anytime on the course page: <https://coursera.org/learn/engineering-humanitarian>

**Week 1 - Public health engineering:** Get a first glimpse at the topic of public health engineering, learn about how infectious diseases are transmitted, and explore how public health engineers can significantly reduce public health threats encountered in humanitarian crises.

**Week 2 - Humanitarian contexts:** Week two focuses on the humanitarian contexts in which public health engineering activities take place. Explore the impact of protracted conflicts on urban essential services, such as water supply and sanitation, and the resulting threats to public health.

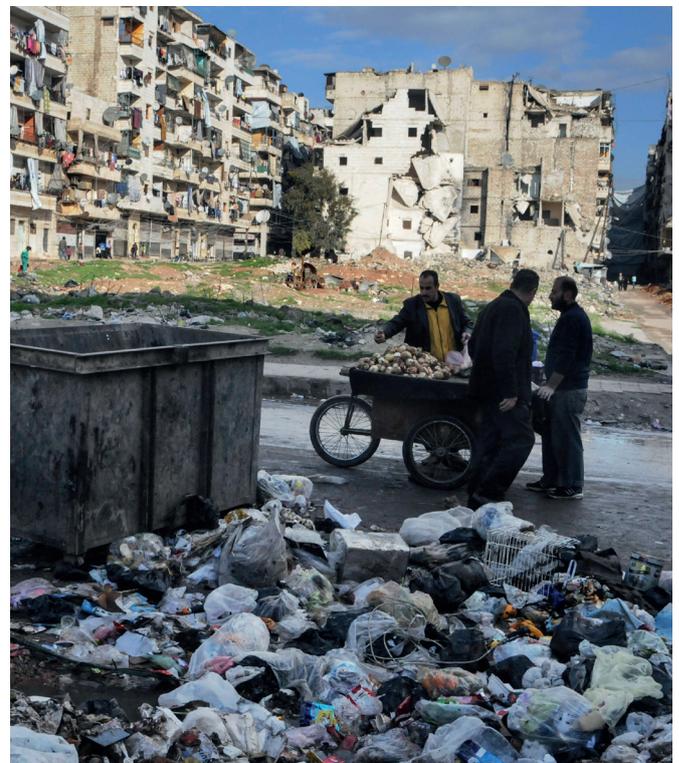
**Week 3 - Water supply systems:** In week 3 of the course, you get to know common water supply technologies from the source to the distribution point. To adequately equip you for the humanitarian context, we introduce you to their individual pros and cons in the specific case of humanitarian emergencies.

**Week 4 - Sanitation:** Week 4 provides you with a comprehensive review of sanitation technologies and excreta management. To illustrate some of the challenges and best practices in the humanitarian WASH (water, sanitation and hygiene) sector, we share several case studies with you.

**Week 5 - Waste management and hygiene promotion:** In the first half of the week, you learn about the extremely important topics of behavior change and hygiene promotion in humanitarian crises. In the second half, you find out about the threats medical waste can pose to public health, and how this waste can be adequately managed in emergency situations.

## Course at a glance

<b>Available:</b>	constantly (course starts anew every 4 weeks)
<b>Workload:</b>	4 - 6 hours/week
<b>Language:</b>	English
<b>Subtitles:</b>	French, Spanish and English
<b>Costs:</b>	The course is free
<b>Certificate:</b>	49 US\$ (optional)
<b>Course page:</b>	<a href="https://coursera.org/learn/engineering-humanitarian">https://coursera.org/learn/engineering-humanitarian</a>



## Requirements

This course is an introduction and can be taken by anybody with a stable Internet connection and an interest in the topic. A background in engineering, public health or related fields is an asset, but not a requirement.

## Course certificate

All course materials are accessible for free. However, Coursera charges 49 US\$ for the certificate. The certificate is optional and you can complete the course without ordering the certificate.

