Specialization course: Drinking water treatment

Urban water services, focusing on conventional technologies for drinking water treatment.

TU Delft
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- https://www.edx.org/course/drinking-water-treatment-0

- This course focuses on conventional technologies for drinking water treatment.
- Unit processes, involved in the treatment chain, are discussed as well as the physical, chemical and biological processes involved.
- The emphasis is on the effect of treatment on water quality and the dimensions of the unit processes in the treatment chain.

Module 1 Introduction to drinking water treatment.

- Describe the important disciplines, schemes and evaluation criteria involved in the design phase.
  - **Urban water cycle.**
  - **Design aspects of drinking water treatment plants.**

Module 2 Water Quality.

- Identify the drinking water quality parameters to be improved and explain what treatment train or scheme is needed.
  - **Water quality aspects.**
  - **Drinking water chemistry.**
  - **WHO - Guidelines for drinking water quality.**

Module 3 Groundwater treatment.

- Calculate the dimensions of the groundwater treatment processes and draw groundwater treatment schemes.
  - **Aeration. Filtration. Conditioning and Softening.**
  - **Design of a Groundwater Treatment Plant.**

Module 4 Surface water treatment.

- Calculate the dimensions of the surface water treatment processes and draw surface water treatment schemes.
  - **Coagulation. Flocculation. Sedimentation. Disinfection. Artificial Infiltration.**
  - **Design of a Surface Water Treatment Plant.**

- Course duration : 7 weeks (8 hours per week).
- 53 Videos.

- **Main Book _ Drinking Water , Principles and Practices.** (TU Delft - The Netherlands).
- P.J. de Moel, J.Q.J.C. Verberk, J.C. van Dijk
- 413 pages, ISBN 981-256-836-0