UNIVERSITÀ DI PAVIA

Anno Accademico 2020/2021

DESIGN OF WASTEWATER AND DRINKING WATER TREATMENT PLANTS

Enrollment year	2019/2020
Academic year	2020/2021
Regulations	DM270
Academic discipline	ICAR/03 (ENVIRONMENTAL AND HEALTH ENGINEERING)
Department	DEPARTMENT OF CIVIL ENGINEERING AND ARCHITECTURE
Course	ENVIRONMENTAL ENGINEERING
Curriculum	Energie rinnovabili
Year of study	2°
Period	1st semester (28/09/2020 - 22/01/2021)
ECTS	6
Lesson hours	50 lesson hours
Language	Italian
Activity type	WRITTEN AND ORAL TEST
Teacher	SORLINI SABRINA (titolare) - 6 ECTS
Prerequisites	Waste and wastewater treatment plant design.
Learning outcomes	The course deals with the design criteria of technologies for water and wastewater treatment, with the use of different evaluation approaches.
Course contents	– DRINKING WATER TREATMENT Definition of design data (wastewater flow, water characteristics) by means statistical evaluations, surveys, analytical campaigns Design criteria of processes for surface water treatment. Plant layout. Examples of a water treatment project. Technical tour to a drinking water treatment plant. – WASTEWATER TREATMENT Definition of design data (wastewater flow, load of pollutants) by means statistical evaluations, surveys, analytical campaigns. Design of processes for urban wastewater treatment (water line and

	sludge line). Plant layout. Preparation of design drawings; examples of wastewater treatment plant project.
Teaching methods	The course is organized in lectures and exercises. The lectures describe the processes of wastewater and drinking water treatment plants, deepening both the process and the design aspects. The exercises consist in the design of the treatments analyzed during the lectures. A technical visit to a drinking water treatment plant is also planned. Lectures (hours/year in lecture theatre): 33 Practical class (hours/year in lecture theatre): 15 Practicals / Workshops (hours/year in lecture theatre): 2
Reccomended or required readings	- Bonomo. Trattamenti delle Acque Reflue. McGraw-Hill. - Masotti. Depurazione delle acque - Tecniche ed impianti per il trattamento delle acque di rifiuto. Calderini. - Collivignarelli, Sorlini. Potabilizzazione delle acque: processi e tecnologie. Dario Flaccovio Editore.
Assessment methods	The exam consists of a written test and an oral exam.
Further information	The teaching material will be uploaded on Kiro platform.
Sustainable development goals - Agenda 2030	$lbl_legenda_sviluppo_sostenibile