

## Module Layout

### XMΠ513: Wastewater Engineering

<b>Faculty</b>	Code	Faculty of Pure and Applied Sciences	
<b>Programme of Study</b>	XMΠ	Sustainable Environmental Engineering	
<b>Module</b>	XMΠ513	Wastewater Engineering	
<b>Level of Study</b>	<b>Undergraduate</b>	<b>Graduate</b>	
		<b>Master</b>	<b>Doctoral</b>
		X	
<b>Language of Instruction</b>	Greek		
<b>Mode of Delivery</b>	Distance		
<b>Module Type</b>	<b>Required</b>	<b>Electives</b>	
	X		
<b>Number of Group Consulting Meetings</b>	<b>Total</b>	<b>Physical Presence</b>	<b>Online</b>
	13	0	13
<b>Number of Assignments</b>	1		
<b>Final Grade Calculation</b>	<b>Assignments</b>	<b>Weekly Activities</b>	<b>Final Exam</b>
	30 %	10 %	60 %
<b>Number of European Credit Transfer System (ECTS)</b>	10		

#### Module Description

The course focuses on the production of liquid waste, its quantitative and qualitative characteristics and its management - treatment methods. Particular emphasis is placed on the pollutant parameters, the understanding of mass balances, the production and categorization of industrial waste and advanced treatment methods such as chemical reactions, membrane technology, etc.

The objective of the course is to delve into issues related to management liquid waste. The student is expected to know after the successful completion of the course: (i) The production mechanism and the main characteristics of liquid waste (municipal and industrial), (ii) the basic methods of municipal liquid waste management, (iii) the basic management methods of municipal solid waste management, (iv) methods of industrial waste management, etc. The aim of the course is the study of the basic principles of wastewater treatment systems and the processes, the design and operation parameters of the units utilized in wastewater treatment plant.

#### Pre-requisite Modules

Not applicable

#### Co-requisite Modules

Not applicable

#### Grading Scheme

Assessment Method	Percentage on Final Grade	Workload	
		Hours	ECTS
<b>Weekly Study</b> 13 weeks * ~11 study hours		140-160	4.5
<b>Weekly Interactive Activities</b> 13 weeks * ~1 hour of work	10%	~13	0.5
<b>Assignment</b>	30 %	80 - 100	5.0

<b>Final/Repeat Examination</b>	60 %	3	--
<b>Total</b>	<b>100%</b>	250-300	10

**Grading Rules and Assessment methods**

- Students are evaluated with 10, if they earn 100% of the possible grade.
- Students are evaluated with 9, if they earn 90% of the possible grade, i.e.  $90\% \times 10 = 9$ , etc.
- Passing rate
  - 50% of the Assignment
  - 50% of the Interactive Activities
  - Students are allowed to participate in the final exam of a Module if they have overall earned the minimum grade ( $\geq 50\%$ ) in both their Assignment and Interactive Activities
  - 50% of the Final exam

If a student earns a grade with decimal points, then it is rounded to the nearest half unit.