



## EnvYJobs Module

### COURSES DESCRIPTION

#### GENERAL SYLLABUS

#### GENERAL INFORMATION

EnvYJobs is an educational project implementing innovative learning and training solutions by means of e-learning technologies and live laboratories.

EnvYJobs offers to bachelor, master and PhD students the opportunity to attend 6 international courses held in 4 different countries, under the umbrella of Erasmus+ Programme. The courses will consist of lessons made on an e-learning platform (web-based lessons, “web-lessons”), virtual labs (“web-labs”) and live laboratory training (“live labs”) held in 4 different countries.

During the courses, potential employers and stakeholders from water services, civil and environmental protection field will be put in close contact with students in order to create more employment opportunities.

EnvYJobs project offers international courses jointly organized by the following Universities:

- University POLITEHNICA of Bucharest (Romania) - UPB
- Saxion University of Applied Sciences (The Netherlands) - Saxion
- Technological Educational Institute of Central Macedonia TEICM (Greece) - TEICM
- University of Trento (Italy) - UniTN

#### TARGET STUDENTS

Bachelor, master and PhD engineering students interested in water and environmental issues.

Places available: up to 120 students from the partner universities; among these, up to 38 will be selected to participate in live laboratories in Greece, The Netherlands, Italy and Romania.

#### STRUCTURE OF THE COURSES

The courses: will be delivered by a combination of virtual lessons, virtual labs and webinars that can be attended remotely, also using the facilities of each University.

Live labs: students will be hosted for two weeks at each Partner University. A financial contribution for travel and accommodation expenses will be granted by the Erasmus+ Programme.

Courses will start from September 2016 and Live labs will start from February, 2017.

Approximate dates of Live Laboratories are: February 2017 (SUAP, The Netherlands); July 2017 (TEICM, Greece); February 2018 (UT, Italy); July 2018 (UPB, Romania).



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For students who want to attend Live labs, priority will be given to students who have:

- previously attended at least 4 courses, the respective courses of the Live Labs included;
- successfully passed the exam of at least the course related to the Live Laboratory they intend to attend.

## **COURSES ORGANIZATION**

Courses will be organized in 10-14 web lessons, 2-4 e-labs and 2-4 web labs, with compulsory attendance.

Web lessons and web labs can be attended by students who enrol on the course.

Students can attend the courses from September 2016 until May 2018. The courses are "on demand", i.e., attendance is mandatory but days and hours in which to follow the courses are free according to the needs of each individual student.

Students can interact with other students or with the teaching staff on the EnvYJobs e-learning platform that allows participants to have asynchronous and real-time synchronous discussions.

Two live webinars are scheduled for each course, having the aim to ensure that students reach the highest levels of proficiency possible. Communication during Webinars aims at bringing teachers and students in a closer cooperation in order to clarify issues, answer questions related to the respective course, deepen into matters of special interest to students and resolve any problems that may have occurred.

Starting from January 2017 those who have attended the courses can take the exams. For more details about the timetable of the exams, see EnvYJobs e-learning platform.

## **CREDITS AND CERTIFICATES OF PARTICIPATION**

The students that pass each exam of EnvYJobs module will receive a Certificate of Attendance EnvYJobs E-learning Module.

### Credits:

- 6 ECTS will be awarded upon successful completion of the EnvYJobs module, recognized through an assessment procedure based on web-questionnaires -one for each course through the EnvYJobs e-platform.
- Additional 3 ECTS will be awarded for live laboratories participation, through the development of small group exercise.



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**STUDY MODULE DESCRIPTION**

Six e-courses (*virtual lessons plus virtual labs and webinars*) are offered in the EnvYJobs project, starting from September 2016:

	Course	Institution
01	Design, Modeling and Simulation Techniques for Wastewater Treatment Processes	UPB, University POLITEHNICA of Bucharest – Bucharest (Romania)
02	Soil and Air Quality Monitoring Techniques	UPB, University POLITEHNICA of Bucharest – Bucharest (Romania)
03	Closing the NEW-Resource Cycle through a Zero-Emission Water Management System	SAXION, Saxion University of Applied Science – Enschede (Netherlands)
04	Geoinformation Technologies for Environmental Changes and Pressures Assessment	TEICM, Technological Educational Institute of Central Macedonia–Serres (Greece)
05	Flood Hazard Assessment	TEICM, Technological Educational Institute of Central Macedonia–Serres (Greece)
06	Sustainable Drinking Water Supply Systems	UNITN, University of Trento – Trento (Italy)

*Courses will start (web lessons and web labs will be on line) from September 2016*

Six Live Labs modules are offered in the EnvYJobs module:

Course	Institution
Design, Modeling and Simulation Techniques for Wastewater Treatment Processes	UPB – Bucharest (Romania)
Soil and Air Quality Monitoring Techniques	UPB – Bucharest (Romania)
Closing the NEW-Resource Cycle through a Zero-Emission Water Management System	UNITN – Trento (Italy)
Geoinformation Technologies for Environmental Changes and Pressures Assessment	SAXION – Enschede (Netherlands)
Flood Hazard Assessment	TEICM, Technological Educational Institute of Central Macedonia–Serres (Greece)
Sustainable Drinking Water Supply Systems	TEICM – , Technological Educational Institute of Central Macedonia– Serres (Greece)

*Live Labs will start from February 2017*



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**WHY GO ON THESE Erasmus+ “EnvYJobs” COURSES? WHAT IS THE “ADDED VALUE”?**

- preparing students for the future requires new skills, new approaches and new attitudes, none of which will be as complete without an international dimension
- implementing innovative practices leading to high quality teaching and learning, with also practical aspects faced and discussed.
- gain credits which will count towards degree
- develop independence and confidence
- have an enjoyable and rewarding experience
- travel and make new friends and professional contacts
- stimulating entrepreneurship and entrepreneurial competences of students

**Internationalisation of the curriculum**

- benefit for home and international students in preparing them for the global employment market
- exchange programmes play a crucial role and provide a unique opportunity to add value to their programmes and student experience
- experience a different educational and cultural environment
- gain a new perspective in the subject area, enhancing the students knowledge in Environmental Engineering (with particular attention to the Energy efficiency aspects), and to make their skills more attractive for stakeholders

**Employability in an international market, direct contact with companies and stakeholders**

- increase students’ employability within an international market, and fostering of innovation between Higher Education Institutions (HEI) and Industry. This will be achieved through organization of regular meetings between students and companies/industries during the live labs.
- the topics handled in these courses are crucial and should contain real-life practical business problems which students, staff and the whole alliance HEI-Industry can work upon.
- the implemented innovative teaching practices will lead to high quality teaching and learning, with also practical aspects faced and discussed.



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## SERVICES AND FACILITIES

**Accommodation:** students selected for the participation in the live laboratories will have access to the accommodation facilities of each partner institution, conformal to the “*Erasmus+ Mobility for Study purpose*” policy.

➤ links to accommodation facilities:

University POLITEHNICA of Bucharest:

<http://www.upb.ro/en/accommodation.html>

University of Trento:

<http://web.unitn.it/en/incoming/38089/services-and-facilities-for-international-students>

Saxion University of Applied Sciences:

For short stay exchange programs Saxion has no facilities for accommodation, but the International Office facility desk of the School for Life science, Engineering & Design (LED) will assist in finding proper accommodation for the group who is participating in the Live Labs activities

Technological Educational Institute of Central Macedonia-TEICM:

[http://www.teicm.gr/index.php?cat\\_id=35](http://www.teicm.gr/index.php?cat_id=35)

**Insurance:** according to Erasmus+ Programme, **insurance for students selected for the participation to the live laboratories must cover the following areas:**

- travel insurance (including damage or loss of luggage)
- third part liability
- accident and serious illness (including permanent or temporary incapacity)
- death (including repatriation)

**Sending institution will assist students in getting an insurance that covers the above mentioned areas. Also, the sending institution will ensure that their students have the right insurance before departing for live laboratory.**

It is strongly recommended that students selected for the participation to the live laboratories are in possession of a European health Insurance card. This is a free card that gives access to medically necessary, state-provided healthcare during a temporary stay in any of the 28 EU Countries, Iceland, Liechtenstein and Norway, under the same conditions and at the same cost (free in some Countries) as people insured in that country. More information on the card and how to obtain it is available at: <http://ec.europa.eu/social/main.jsp?catId=559>.

Links to additional insurance requirements for each partner institution:

University POLITEHNICA of Bucharest:

The insurance that covers the above mentioned areas is enough for attending live laboratories in UPB.



University of Trento:

The insurance cover given by the UNITN policy only covers accidents which happen during professional activity or when moving between the various buildings where the professional activity is carried out. The terms and conditions of the accident and liability insurance policy are available at:

<http://web.unitn.it/en/incoming/21452/health-insurance>

<http://web.unitn.it/en/incoming/35798/erasmus-mobility-for-study-purpose>

Saxion University of Applied Sciences:

For short stay exchange programs Saxion will NOT arrange the insurances. Dutch law requires every citizen to be insured for at least Health Care and Private Liability, while a Travel Insurance and a Property Insurance (for theft, fire, etc in your home) are to be advised.

European students (both exchange and regular) have to use their own health care insurance. European students need a European Health Card, which is issued by your own insurance company. Please refer to them for specific details. Make sure you are properly insured for the cost of health care.

Liability insurance is essential in the Netherlands, because whenever someone damages property (of others) or injures people, he/she is immediately held financially responsible.

Saxion will arrange a company liability insurance and an accident insurance for the activities in relation to the participation to the course activities.

Technological Educational Institute of Central Macedonia-TEICM:

All students of the institution are entitled to the same health services which cover doctor consultation and hospital treatment free of charge. Prescribed medicines are supplied by paying a small contribution. The nearest hospital is only 2km from T.E.I.C.M. Students' private health insurance is optional

[http://www.teicm.gr/index.php?cat\\_id=35](http://www.teicm.gr/index.php?cat_id=35)



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**BEYOND THE UNIVERSITY COURSES - WHAT TO FIND OUT, WHAT TO SEE IN THE FOUR COUNTRIES**

Some tips on what to visit during trips in the four partner universities: sports, art, tourism, culture, landscape, ...

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Living in Trento and surrounding - Italy

Discover Trento and Trentino region. A guide to the things to do, events, where to stay, where to get around, cultural heritage and many other information can be found at the following links:

<http://www.discovertrento.it/en/>

<https://www.visittrentino.it/en>

University sport centres;

<http://web.unitn.it/en/incoming/21616/unisport>

<http://www.unisport.tn.it/centro-sportivo-universitario-mattarello>

<http://www.unisport.tn.it/centro-nautico-universitario-augsburgerhof>

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Living in Bucharest and surrounding - Romania

Known between the two World Wars as Little Paris, Bucharest is the capital and largest city of Romania, located in the southeast of the country on the banks of the Dambovitza River. Some information about things to do you can find on the following links:

<http://romaniatourism.com/bucharest.html>

<http://www.inyourpocket.com/bucharest>

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Living in Saxion/ Enschede and surrounding - The Netherlands

For experiencing the city of the country you can use the following links:

<http://cityofenschede.com/things-to-do/activities/>

<http://www.visitholland.nl/>

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Living in Serres and surrounding - Greece

Serres is a small city in Northern Greece near Thessaloniki (1.5 hours by bus) with around 70.000 inhabitants of which 8000 students of Higher education Institutions; thus the large number of city cafes, bars, restaurants and the all-day/night city life. Distance to beaches is around 1.5 hours by car and there is a number of interesting destinations in the surrounding area, including the ecosystem of Kerkini lake, Alistrati cave, Agistro Byzantine baths and Sidirokastro. More info can be found at:

[http://teicm.gr/index.php?lang=en&cat\\_id=16](http://teicm.gr/index.php?lang=en&cat_id=16).