



**UNIVERSITÀ DEGLI STUDI  
DELL'INSUBRIA**

**DIPARTIMENTO  
DI SCIENZE TEORICHE E APPLICATE**

**CURRICULUM DESCRIPTION  
(TEACHING REGULATIONS)**

**MASTER'S DEGREE COURSE in  
ENVIRONMENTAL AND WORKPLACE  
SUSTAINABILITY ENGINEERING**

**a.y. 2022/2023**



## I. GENERAL INFORMATION

<b>NAME OF THE DEGREE COURSE (DC)</b>	Environmental and Workplace Sustainability Engineering
<b>CLASS</b>	LM35 - Environmental and territory engineering
<b>TYPE</b>	2-year master's degree course
<b>COURSE LOCATION</b>	Varese
<b>COURSE WEBSITE</b>	For information on the learning objectives of the DC, occupational opportunities, access requirements, admission procedures, expected educational results, curriculum / study plan, final exam, you may refer to the Annual Program Report (DC-APR), published on the course website at: <a href="http://www.uninsubria.eu/master-ewse">www.uninsubria.eu/master-ewse</a>
<b>DEPARTMENT</b>	<a href="#">Scienze teoriche e applicate - DiSTA</a> (Theoretical and Applied Sciences – DiSTA)
<b>DEGREE COURSE CORDINATOR</b>	<b>Prof. Vincenzo Torretta</b>
<b>ACADEMIC OFFICE OF THE DEGREE COURSE</b>	<a href="#">Servizio di Ascolto Manager Didattici per la Qualità - DiSTA</a> (in Italian)
<b>LESSONS TIMETABLE</b>	<ul style="list-style-type: none"><li>• 19/09/2022 - 22/12/2022 1st semester</li><li>• 20/02/2023 - 01/06/2023 2nd semester</li><li>• 09/01/2023 - 17/02/2023 1st exam session</li><li>• 05/06/2023 - 22/09/2023 2nd exam session (August excluded)</li></ul> For lesson suspension dates and holidays for national, local and other festivities (Christmas break, Easter break, University holidays), students should refer to the <b>University Academic Calendar</b> approved by the University bodies at the following link: <a href="http://www.uninsubria.it/chi-siamo/sedi-e-orari/calendario-didattico-di-ateneo">www.uninsubria.it/chi-siamo/sedi-e-orari/calendario-didattico-di-ateneo</a> (in Italian)
<b>FURTHER INFORMATION</b>	<ul style="list-style-type: none"><li>• COURSE ACCESS: <b>open-access</b></li><li>• TEACHING LANGUAGE: <b>Italian</b></li><li>• TEACHING PROCEDURES: <b>Traditional</b></li></ul>



<p><b>TUTORS</b></p>	<p>The DC tutors guide and assist students during their entire educational pathway, making them actively participate in the educational process and removing obstacles to a profitable attendance to courses, also through specific initiatives related to the needs and predispositions of individual students.</p> <p>The TUTORS of the Master's DC Environmental and Workplace Sustainability Engineering are Professors:</p> <p>Conti Fabio Copelli Sabrina Espa Paolo Ruggieri Gianluca</p> <p><a href="http://www.uninsubria.it/magistrale-iasal">www.uninsubria.it/magistrale-iasal</a> - select "Organizzazione del Corso" (in Italian)</p>												
<p><b>LECTURERS OF THE DC</b></p>	<table border="1"> <thead> <tr> <th data-bbox="662 761 1085 795"><b>Lecturer</b></th> <th data-bbox="1085 761 1493 795"><b>Course</b></th> </tr> </thead> <tbody> <tr> <td data-bbox="662 795 1085 884">COPELLI Sabrina</td> <td data-bbox="1085 795 1493 884">Safety elements, industrial processes and chemical/environmental risks - mod. Safety and industrial processes</td> </tr> <tr> <td data-bbox="662 884 1085 996">DAL LAGO Bruno</td> <td data-bbox="1085 884 1493 996">Fire-structures interactions and fire-engineering elements PAPA Enrico Anselmo Structural analysis and restoration</td> </tr> <tr> <td data-bbox="662 996 1085 1030">PAPA Ester</td> <td data-bbox="1085 996 1493 1030">Environmental chemistry</td> </tr> <tr> <td data-bbox="662 1030 1085 1064">ZACCARA Serena</td> <td data-bbox="1085 1030 1493 1064">Ecology and sustainability</td> </tr> <tr> <td data-bbox="662 1064 1085 1142">CONTI Fabio</td> <td data-bbox="1085 1064 1493 1142">Healthcare-environmental engineering complements – Module A</td> </tr> </tbody> </table>	<b>Lecturer</b>	<b>Course</b>	COPELLI Sabrina	Safety elements, industrial processes and chemical/environmental risks - mod. Safety and industrial processes	DAL LAGO Bruno	Fire-structures interactions and fire-engineering elements PAPA Enrico Anselmo Structural analysis and restoration	PAPA Ester	Environmental chemistry	ZACCARA Serena	Ecology and sustainability	CONTI Fabio	Healthcare-environmental engineering complements – Module A
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<p><b>ASSESSMENT OF CURRICULAR REQUIREMENTS AND OF THE ADEQUACY OF INDIVIDUAL PREPARATION</b></p>	<p>In order to be admitted to the master's degree course in Environmental and Workplace Sustainability Engineering students must meet the following requirements. They will have to hold:</p> <ul style="list-style-type: none"> <li>• A Master's Degree, according to MD 509/1999 or MD 270/2004, obtained at an Italian University or a four-year Degree (ante MD 509/1999), obtained at an Italian University or equivalent qualification;</li> <li>• at least 24 ECTS, or equivalent knowledge, acquired from any academic course in the academic fields listed below for basic educational activities in the academic fields of the Bachelor's Degrees from the L-7 Civil and Environmental Engineering Class;</li> <li>• at least 36 ECTS, or equivalent knowledge, acquired at any academic course in the academic fields listed below for characterizing educational activities of the Civil Engineering, Environmental and Territory Engineering, and Safety and Civil Protection Engineering disciplinary fields of the Bachelor's Degrees of the L-7 - Civil and Environmental Engineering Class;</li> </ul> <p>The assessment of these requirements, including that of graduates from foreign Universities, will be carried out by the orientation and previous career validation tutor. After this verification, the individual preparation of all candidates will be assessed through an interview on some topics related to the disciplines treated in the basic courses of environmental and territory engineering, with special regard to characterizing disciplines, especially in the field of healthcare-environmental engineering. Besides the skills assessed in the interview, candidates will have to demonstrate that they have adequate linguistic propriety and judgment autonomy with regard to the relevant topics.</p> <p>The meeting is carried out by a special committee composed of the lecturers</p>												



	<p>appointed by the Council of the Degree Course. The interview may also be carried out online, following the procedures and schedule which will be made available in advance on the web pages of the Degree Course. A negative assessment in the interview entails the exclusion from the Master's Degree course for the academic year of the interview.</p>
<p><b>ORIENTATION, ENROLLMENT PROCEDURES AND OTHER ADMINISTRATIVE ASPECTS</b></p>	<p><b>INFOSTUDENTI SERVICE</b></p> <p>The INFOSTUDENTI service is a web application that offers a communication channel through which students and future students can obtain some useful information by contacting the different offices of the University (Student Services office, Right to Study and Student Services, Orientation and Placement, Academic Offices and International Relations).</p> <p>With this system students can ask questions and receive answers, attach documents and follow the status of their requests.</p> <p>The service may be accessed at the following link: <a href="http://www.uninsubria.it/infostudenti">www.uninsubria.it/infostudenti</a> (in Italian)</p>



## II. STUDY PLAN

### MANDATORY TEACHING ACTIVITIES – 2022/2023 COHORT

Mandatory courses refer to all the courses provided for the entire degree course, which will have to be taken by all students enrolling in the current A.Y. (Enrollment cohort) in order to complete the degree program and obtain the qualification.

1st YEAR							
SEM.	INTEGRATED COURSE / COURSE Title	COURSE/MODULE Title	Academic field	DISCIPLINARY FIELD / Type of Teaching Activity	ECTS	HOURS	ASSESSMENT METHOD*
First	ENVIRONMENTAL CHEMISTRY		CHIM/12	B/Engineering for the environment and territory	6	LEC:48	M
First	ADVANCED HYDRAULICS		ICAR/01	B/Engineering for the environment and territory	6	LEC:36, EXE:18	M
First	ADVANCED ENVIRONMENTAL ENGINEERING	<i>Healthcare-environmental engineering complements - MODULE A</i>	ICAR/03	B/Engineering for the environment and territory	6	LEC:24 EXE:36	M
		<i>Healthcare-environmental engineering complements - MODULE B</i>			6	LEC:32 EXE:18	M
Second	ANALYSIS AND STRUCTURAL RECOVERY		ICAR/08	B/Engineering for the environment and territory	6	LEC:48	M
First	ELECTROMECHANICAL SYSTEMS, TRAINING AND SAFETY		ING-IND/31	C/Related or supplementary educational activities	9	LEC:72	M
Second	ELEMENTS OF ENVIRONMENTAL LAW AND CIRCULAR ECONOMY		IUS/05	C/ Related or supplementary educational activities	6	LEC:48	M
Second	TECHNICAL ENGLISH FOR ENGINEERING		L-LIN12	F/Further linguistic skills	4	LEC:32	Q
<b>One course between:</b>							
Second	ECOLOGY AND SUSTAINABILITY		BIO/07	B/Engineering for the environment and territory	6	LEC:48	M
Second	CIRCULAR ECONOMY AND APPROPRIATE TECHNOLOGIES FOR SUSTAINABLE DEVELOPMENT		ICAR/03	B/Engineering for the environment and territory	6	LEC:48	M

### 2nd YEAR

SEM.	INTEGRATED COURSE / COURSE Title	COURSE/MODULE Title	Academic field	DISCIPLINARY FIELD / Type of Teaching Activity	ECTS	HOURS	ASSESSMENT METHOD*
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First	SAFETY ELEMENTS, INDUSTRIAL PROCESSES AND CHEMICAL/ENVIRONMENTAL RISK	<i>Elements of safety, industrial processes and chemical/environmental risk - MOD. SAFETY AND INDUSTRIAL PROCESSES</i>	ING-IND/24	B/Engineering for the environment and territory	6	LEC:48	M
		<i>Elements of safety, industrial processes and chemical/environmental risk - MOD. CHEMICAL-ENVIRONMENTAL RISK</i>	MED/44	C/Related or supplementary educational activities	6	LEC:48	
First	FIRE-STRUCTURES INTERACTION AND FIRE-ENGINEERING ELEMENTS		ICAR/09	B/Engineering for the environment and territory	12	LEC:96	M
Second	TECHNOLOGIES FOR ENERGY SUSTAINABILITY		ING-IND/11	C/ Related or supplementary educational activities	9	LEC:72	M
<b>One course between:</b>							
Second	EARTHQUAKES GEOLOGY, NATURAL HAZARDS MITIGATION AND THE ROLE OF CIVIL PROTECTION		GEO/03	B/Engineering for the environment and territory	6	LEC:48	M
Second	AIR POLLUTION AND TREATMENT		ING-IND/25	B/Engineering for the environment and territory	6	LEC:48	M

\*J - JUDGMENT M - EXAM Q - QUALIFICATION A - ATTENDANCE

### FURTHER MANDATORY COURSES

SEM.	ACTIVITY Title	ACTIVITY Title	Academic field	DISCIPLINARY FIELD / Type of Teaching Activity	ECTS	HOURS	ASSESSMENT METHOD*
Annual	ELECTIVE		NN	D/A elective	12		M
Annual	THESIS PROJECT		NN	F/Other/ Educational and orientation internships	1	FE:25	J
ND	FINAL EXAM	<i>DEGREE THESIS PREPARATION</i>	FINEX_S	E/Language/Final Exam/For the final exam	12	FE:325	M
		<i>FINAL DISSERTATION</i>		C/Related or supplementary educational activities	1		

### RULES FOR THE CURRICULUM

**PREREQUISITES: NOT APPLICABLE**



### VALIDATION OF LINGUISTIC CERTIFICATIONS

For the purposes of the ECTS validation for “Technical English for Engineering”, students may submit to the Student Services Office a certificate attesting that they have passed an English test of at least B2 level, obtained in the last 5 years (with the exception of the IGCSE, ESOL and TOEFL certificates which, instead, have a validity of only 2 years). For the complete list of recognized certifications, please click on the following link: [www.uninsubria.it/la-didattica/bacheca-della-didattica/riconoscimento-certificazioni-lingue-straniere-dista](http://www.uninsubria.it/la-didattica/bacheca-della-didattica/riconoscimento-certificazioni-lingue-straniere-dista) (in Italian).

Besides submitting the certification, students will also have to take an interview, which aims to assess their knowledge of the technical terminology proper to the engineering field.

### VALIDATION OF PROFESSIONAL ABILITIES

Pursuant to article 5, paragraph 7 of the Ministerial Decree 270/04, the Council of the DC may validate:

- professional knowledge and skills certified pursuant to current regulations;
- knowledge and skills developed in educational activities at a post-secondary level in the organization and implementation of which the University was involved.

The validation application, to which students will have to attach the syllabi of the exams taken in their previous career, even if taken at our University, will be assessed by a Committee appointed by the Council of the Degree Course. The validation may take place if the activity is related to the specific educational objectives of the Degree Course and of the educational activities for which the validation is being requested, also taking into consideration the content and duration in terms of hours of the activity. The maximum number of ECTS that may be validated is 12.

### ATTENDANCE OBLIGATIONS: NOT APPLICABLE

### TRANSFER PROCEDURES FROM OTHER DEGREE COURSES

Students from other Universities or from another Degree Course of the University of Insubria, or from previous systems, can apply for a transfer/change to the Degree Course. Transfer/change applications will be assessed by the Council of the Degree Course, which will proceed to the validation of the ECTS according to the following criteria:

- analysis of the curriculum;
- assessment of the adequacy of the academic fields and of the contents of the activities undertaken by the student in their previous career, with regard to the specific educational objectives of the degree course and of the individual educational activities provided for in the curriculum.

The abovementioned validation is carried out as provided for in article no. 3, paragraphs 8 and 9 of the ministerial decree of Class redefinition (16 March 2007). The validation is carried out until the ECTS provided for by the curriculum are reached.

### FINAL EXAM AND THESIS PROJECT

The final exam consists in presenting and discussing the work carried out for the thesis in an original manner to a specific Graduation Committee.

The thesis will have to entail an organic and complete work aimed to demonstrate the students' research, elaboration and synthesis skills.

Students who cannot carry out an experimental thesis for justifiable reasons assessed by the Internship Committee may, as an alternative, write a bibliographic thesis or a report of an external internship.

The 13 Final exam ECTS are thus divided: 12 ECTS for the thesis preparation and 1 ECTS for the Thesis project within the Educational and Orientation Internships domain. For further information, please see: [www.uninsubria.it/sites/default/files/Didattica/DiSTA/Regolamento\\_conseguimento\\_laurea\\_IASAL.pdf](http://www.uninsubria.it/sites/default/files/Didattica/DiSTA/Regolamento_conseguimento_laurea_IASAL.pdf) (in Italian)

The degree mark, expressed out of 110 and, if applicable, the summa cum laude, is determined by the sum of the following members:

- 1) weighted average score according to ECTS of the marks obtained in the individual exams, out of 110, following the provisions established in the University's Students Regulations;
- 2) a) up to 12 points for experimental theses;  
b) up to 8 points for other types of theses.

If, after this calculation, students have reached 110/110, the Committee can decide whether to assign the summa cum laude, for students with a minimum starting score of 103/110.



### **RULES FOR THE SUBMISSION OF STUDY PLANS AND INDIVIDUAL STUDY PLANS**

Students will have to submit their Study Plan during the first year, with the possibility to modify it in the following year, following the University's administrative fulfillments calendar. Information on how to submit and fill in the study plan are available on the Students Services webpage: [www.uninsubria.it/servizi/presentazione-piano-di-studio](http://www.uninsubria.it/servizi/presentazione-piano-di-studio) (in Italian)

Elective educational activities may be chosen among all courses activated by the University, with the exception of some integrated courses offered by the limited access healthcare degree courses. The Council of the Degree Course will assess the coherence of these elective activities with the educational curriculum students have enrolled in. Please note that the lessons of elective courses taken from other Degree Courses of the University may take place at the same time as the lessons of the Degree course.

**For further information please refer to the degree course webpage.**

[www.uninsubria.eu/master-ewse](http://www.uninsubria.eu/master-ewse)

**For students with disabilities and/or specific learning disorders, please visit:**

[www.uninsubria.it/studentidisabilidsa](http://www.uninsubria.it/studentidisabilidsa) (in Italian)