

Higher education in environmental sciences with chemistry emphasis: bachelor and master programmes in Europe

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Introduction, motivation

As a consequence of public environmental concerns and scientific activities in environmental field since the 1960s, regulatory developments both at national and the European levels and following increasing demand for graduates educated in various aspects of environmental sciences, corresponding programmes of higher education have been established at European universities since the 1980s. Chemistry is one of the fundamental disciplines of the environmental sciences and, consequently, is usually included in related programmes of higher education. The science of chemistry in environmental media (compartments) and the total (multicompartment) environment has its roots in the geosciences (biogeochemistry, hydrology, oceanography, meteorology and soil science) on one hand and traditional chemical disciplines (physical, analytical, inorganic and organic chemistry besides others) on the other hand. Initially, this combination evolved for the various media, air, water, soil and biota, alongside and only loosely

connected. Environmental chemistry as the overarching discipline has been emerging since the 1970s stimulated by the investigation of intercompartmental chemodynamics and reflected in dedicated scientific journals ('Environmental Science and Technology' since 1967 and 'Chemosphere' and 'The Science of the Total Environment' since 1972) and textbooks (e.g. Manahan, 1972; Hutzinger, 1980). The development and application of environmental technologies for mitigation and remediation purposes has, furthermore, been founded in the engineering sciences.

The Bologna process aimed to introduce a convergent system of tiered study programmes throughout Europe; enhance flexibility, transparency and international competitiveness of the European higher education system; and ensure comparability of higher education qualifications in Europe (Reichert and Tauch, 2005; Kehm and Teichler, 2006). It triggered curricular reforms (Bologna reforms) and presumably lead to a notable diversification of existing programmes of higher education in Europe. Diversification of higher education has also been on the political agenda (Guri-Rosenblit and Sebkova, 2004).

The last decade (2000–2010) saw a strong increase, by 40 %, of student numbers graduating in mathematics, science and engineering (EuroStat, 2011). Student mobility generally in Europe has increased, and the environmental scientists' labour market has been developing a pronounced European dimension (European Commission, 2013). With the aim to identify the programmes in environmental sciences in higher education in Europe and the significance of the environmental chemistry and ecotoxicology fields in those programmes after the Bologna reforms, the Division of Chemistry and the Environment (DCE) of the European Association for Chemical and Molecular Sciences (EuCheMS) conducted a Europe-wide survey. Among departments, biology is most commonly home to ecotoxicology rather than chemistry. Ecotoxicology was, nevertheless, included in this survey

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focusing on chemistry as, historically, the scientific discipline devoting to the effects of chemicals in biota on one hand side and the exposure of the environment towards chemicals on the other hand side have been developing alongside. The results should provide valuable information first and foremost not only for students but also for those engaged in teaching environmental chemistry and environmental sciences and for academia in Europe in general.

Methodology

In the period from December 2011 to November 2012, questionnaires (see [Appendix](#)) were sent to institutions of higher education in Europe. The questions covered the type of degree (first or second cycle, i.e. bachelor or master), title of the programme, contact information, number of credit points (according to the European Credit Transfer and Accumulation System, ECTS; http://ec.europa.eu/education/lifelong-learning-policy/ects_en.htm) allocated to chemistry and in total, as a description of the curricular emphasis (see [Appendix](#)).

The addressees of the survey were identified in different ways in different countries, namely through either:

- (a) The chemical society in the country represented by a delegate to the DCE, namely in Belgium, Croatia, Cyprus, Finland, Italy, Norway, Germany, Greece, Hungary, Israel, Poland, Portugal, Serbia, Slovenia and Switzerland or through
- (b) Directly contacting scientists or scholars active in research and/or higher education in the environmental sciences, namely in Andorra, Austria, Bosnia and Herzegovina, Bulgaria, Czech Republic, Denmark, Ireland, Luxembourg, Moldova, Romania, Slovakia, Sweden and Turkey or through
- (c) Information published on the worldwide web (web pages of the programmes or eUni, 2013), namely in Albania, Armenia, Belarus, Estonia, France, Georgia, Iceland, Latvia, Lithuania, Macedonia (FYRO), Malta, Montenegro, the Netherlands, Spain and the UK.

Hence, covered is the entire European continent with the exceptions of Ukraine and Russia (and very small states without institutions of higher education) and Turkey and Israel. This way, 450 questionnaires were filled out.

When it comes to the analysis of the collected data, any significant coverage of chemistry in a course programme of environmental studies is considered relevant. Usually, identification of chemistry (or chemical or analytics) in the title of the course was considered necessary to report the course as relevant, while in few cases, also courses centred in the geo- or biological sciences or engineering, which, however, offer

chemical topics to a significant extent, were included and reported. Environmental technology/environmental engineering curricula were not focussed, but to some extent included nevertheless. In total, 333 relevant programmes of higher education of environmental studies were identified, i.e. 152 bachelor (out of which 148 BSc), 181 master (out of which 176 MSc), 2 diploma and 6 other advanced study programmes in 237 institutions (234 public universities including 3 German Universities of Applied Sciences, 1 French Grande École and 1 private university in Spain and each 1 research institution in Israel and Slovenia). These were found in 28 countries. The programmes and part of the data returned are listed in the [Appendix](#). No relevant information was retrieved

Table 1 Number of BSc and MSc programmes with environmental chemistry included per country, in brackets number of programmes with percentage of courses given in English > 50 %^a

	Bachelor	Master ^b
Total	156 (30)	181 (62)
Austria	0	1 (1)
Belgium	0	1
Bosnia and Herzegovina	2	2
Croatia	1	1
Cyprus	1	0
Czech Republic	2	4
Denmark	1 (1)	2 (2)
Finland	1	6 (3)
France	20 (1)	27 (1)
Germany	20	30 (11)
Greece	3	5 (2)
Hungary	2	3
Ireland	2 (2)	1 (1)
Israel	0	1 (1)
Italy	23	16
Netherlands	3 (1)	8 (8)
Norway	1 (1)	5 (2)
Poland	4 (3)	5 (4)
Portugal	4	3
Romania	7	3
Serbia	4	5
Slovakia	1	3
Slovenia	2	2 (1)
Spain	26	22 (3)
Sweden	5 (1)	7 (6)
Switzerland	2 (1)	2 (1)
Turkey	0	4 (3)
UK	19 (19)	12 (12)

^a Including programmes where language is switched to English if non-native students are enrolled

^b Including diploma programmes

from 15 countries [4 countries through (b) and 11 countries through (c) above].

Thirty-six percent of the programmes which were identified as potentially relevant [i.e. based on (a) and (b) above] returned the questionnaire. This percentage should not be considered a return rate: In many of the addressed curricula, there was probably no chemistry (or close to none) offered, i.e. there is an expectedly high rate of no responses in the subsample of irrelevant programmes addressed nevertheless. This fraction can be illustrated for France and Spain [based on approach (c)], where 95 and 59, respectively, possibly relevant MSc programmes were identified, of which actually 26 and 22, respectively (Table 1), were found to offer courses with identification of chemistry (or chemical or analytics) in the title of the course.

Caveats, biases

The information collected may be incomplete as:

- Despite the effort made to achieve completeness, relevant programmes could not be identified [relevant for approaches (a), (b) and eventually also for (c)].
- Questionnaires, although relevant, were not returned [despite repeated request to do so, relevant for approaches (a) and (b)].

Fig. 1 Geographical distribution of MSc programmes with environmental chemistry or ecotoxicology included (all) or ‘environmental chemistry’ included in the title of the programme (filled circles) offered at universities. Forty-three countries covered (white). More than one programme per city not shown

Since programmes have their life cycles between accreditation, it is likely to expect that at the moment of publishing, some of this information can be outdated or changed.

Results

Distribution and diversity of programmes

Relevant programmes were found offered in institutions of higher education in 28 out of 43 addressed countries. These 28 countries include all major European countries (note that Russia and Ukraine were not addressed). The geographical and country distributions are shown in Fig. 1 and Table 1. No relevant programmes were found in a number of small countries including the Baltic countries, some Balkan (including Bulgaria) and Eastern European countries.

The highest numbers of programmes with environmental chemistry included are found in big countries (by number of inhabitants), Germany (50), Spain (48), France (46), Italy (39) and UK (31; Table 1), corresponding to 0.5–0.8 programmes per million inhabitants. Relatively high numbers were also identified in Sweden (11), Romania (10), Poland (9), Serbia (9), Finland (8), Greece (8), Portugal (7), the Czech Republic (6) and Norway (6; Table 1). With 1.2–1.3 programmes per million inhabitants, the Nordic countries Finland, Norway and

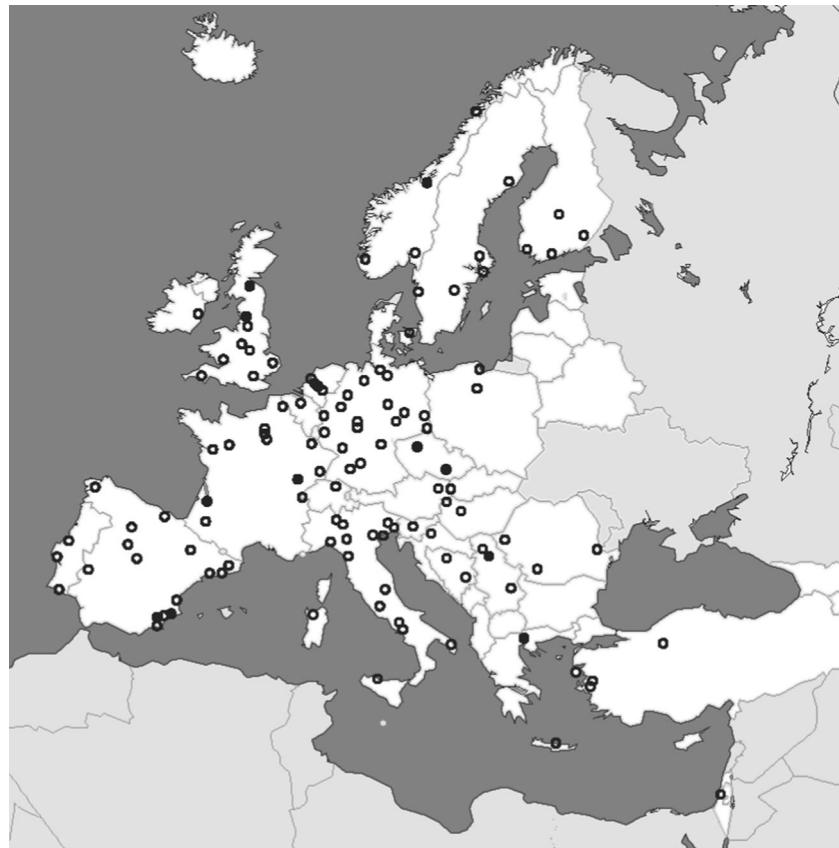


Table 2 Identifications of subjects (disciplines, sub-disciplines and fields of studies) in programme titles which offer environmental chemistry or ecotoxicology (316 programmes and 497 subjects, for example, ‘Environmental Science and Engineering’ counted as Env Sci and Env Eng, ‘Geocology’ counted as Geo and Ecol, ‘Chemical Sciences and

Technology’ counted as Chem and Chem Technol and ‘Environmental Toxicology and Chemistry’ counted as Ecotox and Env Chem) corresponding percentage of credit points allocated at least to some extent to chemistry (%), mean±standard deviation) and numbers of programmes (in parentheses)

Subject	Bachelor programmes	Master programmes	Other programmes
Agriculture, Agrobiol, Landscape	3 (3)	21 (6)	– (0)
Air	see Atmosphere		
Arctic	– (0)	– (0)	100±0 (3)
Atmosphere	n.d. (1)	10 (2)	– (0)
Biol	see Ecology		
Biotechnol	56 (2)	28±16 (4)	– (0)
Chem, Analytical Chem	38±28 (9)	49±34 (13)	100 (1)
Chem Eng, Chem Technol, Technol Chem, Chem Processes	22±19 (22)	20±16 (6)	– (0)
Chem Technol	see Chem Eng		
Cities	see Urban		
Climate	see Env Physics		
Earth	see Geo-		
Ecology, Ecosystems, Env Biol, Biol, Life	9±4 (15)	19±16 (34)	– (0)
Ecotox, Env Contamination, Env Toxicol	– (0)	44±17 (9)	100 (1)
Education	see Teacher		
Energy	see Env Physics		
Env	see Env Sci		
Env Assessment	n.d. (1)	43±49 (7)	– (0)
Env Biol	see Ecology		
Env Chem	44±49 (4)	48±39 (9)	– (0)
Env Eng, Env Technol, Ecotechnol	14±11 (23)	29±14 (32)	– (0)
Env Heritage	see Nature		
Env Managemt	28±26 (7)	30±17 (16)	– (0)
Env Monitoring	see Env Prot		
Env Physics, Systems Analysis, Climate, Energy	20 (1)	34±26 (7)	– (0)
Env Protection, Env Quality, Monitoring, Remediation, Pollution Control	22±15 (20)	30±21 (15)	100 (2)
Env Sci, Env Studies, Env	14±9 (81)	31±29 (65)	50 (1)
Env Toxicol	see Ecotox		
Geo-, Earth	15±14 (16)	35±34 (17)	– (0)
Geography	see Geo-		
Forest	6±1 (3)	– (0)	– (0)
Health	3 (2)	10 (1)	– (0)
Marine	see Water		
Nature, Nature Conservation, Env Heritage	13 (2)	10 (2)	– (0)
Ocean	see Water		
Radioecology	– (0)	50 (1)	– (0)
Remediation	see Env Prot		
Resources	see Sustainability		
Risk Analysis	see Env Assessment		
Soil	n.d. (1)	n.d. (1)	– (0)
Sustainability, Sustainable, Resources, -Technol, -Managemt	36±42 (4)	25±28 (17)	– (0)
Systems Analysis	see Env Physics		
Teacher	– (0)	n.d. (1)	– (0)

Table 2 (continued)

Subject	Bachelor programmes	Master programmes	Other programmes
Technol Chem	see Chem Eng		
Toxicology, Pharmaceutical Toxicology	11 (1)	16±8 (4)	– (0)
Urban, Industrial, Cities	n.d. (1)	28 (2)	– (0)
Waste	33 (1)	– (0)	– (0)
Water, Aquatic, Marine	9±6 (8)	21±15 (11)	– (0)

n.d. no data

Sweden, as well as Serbia are leading. Low values of number of programmes per million inhabitants are not conclusive as particularly sensitive to false-negatives (overlooked programmes). With the Nordic countries and Germany, high values indicating a strong educational basis in the environmental sciences are obviously found for countries which are traditionally strong in environmental research, with the UK, however, also a medium value (0.5). This difference in education basis is in particular notable with regard to the UK, which science output in environmental chemistry (reflected in publication statistics) is particularly large even higher than Germany's (Lammel et al., 2009). This research output of the UK is obviously based on significantly less higher education programmes. This may partly be explainable by the extraordinarily high degree of interdisciplinarity of the research (scientists in the field trained in many disciplines) or by false-negatives (overlooked programmes in the UK).

Programmes are counted as of 2012, regardless of their tradition. For example, while environmental chemistry at VU Amsterdam builds on 40 years, a similar programme has been offered at KU Prague since 2012. Curricula in environmental chemistry and ecotoxicology in Europe which responding scholars ranked *among the best and most recommendable*, sometimes the local or a programme in a close by university, was identified. University programmes which were named more than once by programmes offered in other countries and, hence, of apparently high reputation are ETH Zürich (identified 7 times), U Stockholm (5), U Lancaster (3), VU Amsterdam (2, environmental chemistry and toxicology programme), U Manchester (2, Chem Eng with Env Technol) and U Koblenz-Landau (2, ecotoxicology programme).

Most European higher education systems offer first a bachelor's degree (normally 3–4 years long) followed consecutively by a master's degree (1–2 years). Specialization during the second level can be achieved by free choice of courses and modules within a programme or by diversifying the MSc programmes with the specialization being reflected by the programme subject(s). Correspondingly, the number of MSc programmes exceeds the number of related undergraduate studies in most of the countries, most notably in Finland, Norway and Turkey (Table 1).

Programme subjects as identified in the programmes' titles, which offer environmental chemistry, are very diverse. These are listed and partly grouped in categories (Table 2). 'Environment' is identified as subject approximately ca. 240 times (\approx 75 % of the programmes), while 'Ecology' and 'Environmental Engineering' (including similar terms in programme titles) are identified \approx 50 times (15–17 %), 'Geo-' and 'Chemical Engineering' \approx 30 times (9 %, including similarly titled programmes) and 'Chemistry', 'Sustainability' and 'Water' are identified 15–25 times (6–7 % including similarly titled programmes; Table 2). Four BSc (each 1 in the Czech Republic, Romania, Serbia and the UK) and nine MSc programmes (2 in the Czech Republic and Spain and each 1 in France, Germany, Greece, Norway, Serbia and the

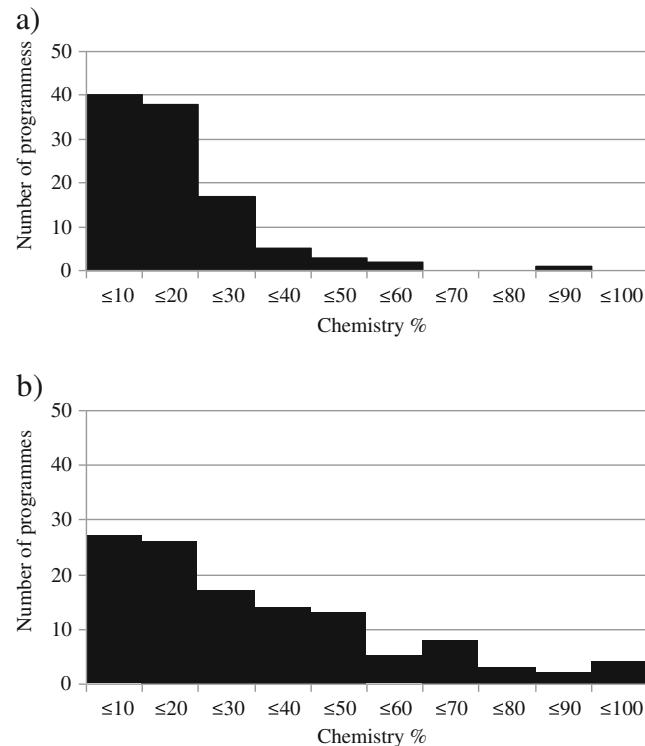


Fig. 2 Number of **a** BSc programmes ($n=106$) and **b** MSc programmes ($n=119$) with certain percentage of unavoidable credits given for chemistry

UK) are explicitly entitled ‘Environmental Chemistry’, partly together with other subjects (each 1 in Germany, Norway and Spain). More than two thirds of the programmes are identified as ‘sciences’, while terms denoting applied sciences and technologies (‘Technology’, ‘Engineering’ and ‘Management’) are identified in approximately one third of the programmes. The courses offered do not necessarily reflect the diversity of the programme subjects but, instead, often are more similar across programmes than the subjects suggest. This eventually also reflects efforts to shape the faculty’s or department’s educational profile. The faculties and departments hosting these programmes are correspondingly diverse: sciences (including natural sciences), chemistry, geosciences (including environmental sciences), biology and applied sciences (Technology, Agriculture, Forestry).

Significance of chemistry in programmes

The programmes’ heterogeneity implies a wide range of credit points being specifically allocated to chemistry. Students’ in most programmes manifold options to specialize in implying a wide range of credit points being allocated to chemical topics within the same programme. The unavoidable fraction of credit points allocated to chemical topics in BSc programmes is 15 ± 11 (0–62)% and in MSc (and equivalent) programmes is 28 ± 21 (0–100)%. In few cases (U Stockholm, U Turku), studying environmental programmes with complete neglect of chemical topics is possible and, the opposite, in one programme (U Jena, MSc Env. Sci.), it is impossible to draw credit points from other topics than chemical ones.

The distributions (number of courses) with certain percentage of chemistry which is unavoidable for 106 BSc and 119

Table 3 BSc and MSc programmes with highest number of credits allocated to chemistry

BSc programmes					
Country	City	Bachelor	No. of ECTS allocated to chemistry	% Engl.	
Serbia	Belgrade	Env Chem	240/240	<50	
Serbia	Novi Sad	Env Prot Analyst	216/240	0	
Serbia	Kragujevac	Chem–Env Prot	110/240	<50	
Germany	Tübingen	Env Natl Sci	72/180	0	
Switzerland	Zürich	Env Sci	70/180	>50	
Romania	Craiova	Env Qual	65/180	0	
Germany	Köln	Chem Technol	≥60/180	0	
Czech Republic	Brno	Env Sci	42–54/180	<50	
Slovenia	Ljubljana ^a	Ecotechnol	60–90	100	
MSc programmes					
Country	City	Master	No. of ECTS allocated to chemistry	% Engl.	
Norway	Trondheim	Env Toxicol & Chem	120/120	>50	
Norway	Aas	Org Env Chem	120/120	<50	
Norway	Aas	Radioecol	120/120	<50	
Germany	Halle	Env Analysis & Env Chem	120/120	0	
Germany	Jena	Env Sci	120/120	n.d.	
Serbia	Nis	Appl Chem ^b	120/120	0	
Germany	Essen	Env Toxicol	96/120	100	
Finland	Jyväskylä	Chem	≥80/120	n.d.	
Finland	Jyväskylä	Renewable Energy	≥80/120	n.d.	
Germany	Tübingen	Env & Applied Geosci	≤80	100	
Germany	Tübingen	Geoecol	≤80	100	
Switzerland	Zürich	Env Sci	70/120	>50	
Romania	Craiova	Env Qual	70/120	0	
Slovenia	Ljubljana	Ecotechnol	60–90	100	
Serbia	Belgrade	Env Chem	60/60	<50	
Austria	Wien	Env Sci	60/120	100	
Germany	Frankfurt	Env Sci	60/120	0	
Greece	Thessaloniki	Env Chem	50/120	0	
Czech Republic	Brno	Env Chem	50/120	<50	

^a Jozef Stefan Institute

^b Module Env Chem

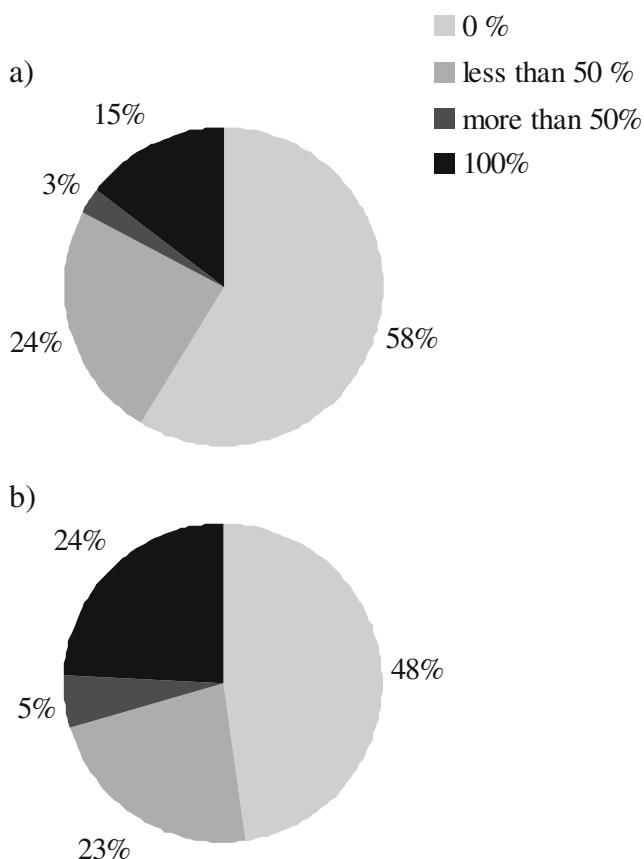


Fig. 3 Percentage of courses given in English for **a** BSc programmes ($n=116$) and **b** MSc programmes ($n=132$)

MSc programmes are shown in Fig. 2 and is allocated to subjects identified in the programme titles in Table 2. The dedication to chemistry seems to be very similar for master programmes of Environmental Sciences, Environmental Protection, Environmental Engineering and Environmental Physics (and similarly titled programmes) with an average $\approx 30\%$ of the credit points are allocated at least to some extent to chemistry. In master programmes of Environmental Chemistry, Ecotoxicology and Environmental Assessment (and similarly titled programmes), this share is 48, 44 and 43 % by average, respectively, and, hence, almost as high as in programmes of Chemistry itself (including similarly titled programmes) covered in the survey (49 %, Table 2). These numbers adequately reflect the interdisciplinary nature of these disciplines.

Among BSc programmes, the highest number (10) is near 10 % of chemistry credits. The largest number (99 out of 106) is below 35 % of chemistry credits, although there are few programmes which have high percentage of chemistry. Among MSc programmes, again, the highest number (13 programmes) is near 10 % of chemistry credits. However, a much higher diversity related to share of chemistry credits is found at this level. Ten programmes have 50 % of chemistry

credits as well. The programmes with the highest number of credits allocated to chemistry are shown in Table 3.

Teaching language

Answers on course language were possible to analyze for 116 BSc and 132 MSc programmes. It was found that among the BSc programmes, 68 do not offer courses in English at all, less than 50% of courses are offered in English in 28 programmes, only 3 programmes have more than 50% of the courses given in English and 17 programmes are completely given in English (each 1 in France, each 1 in Denmark, the Netherland and Norway and the rest in the UK and Ireland) (Fig. 3a). More courses are given in English at the MSc level: 63 out of 132 MSc programmes do not offer any courses in English, less than 50 % of courses in English is given in 30 programmes, more than 50 % of courses in 7 programmes and 32 programmes are given totally in English (7 in Germany, 4 in Sweden, 3 in Spain, 2 in Norway and 2 in Finland and each 1 in Austria, Denmark, France, the Netherlands, Slovenia, and Turkey and the rest in the UK and Ireland) (Fig. 3b). In some programmes, the language is switched to English when non-native students enroll.

The complete data is available on the WWW (DCE, 2014).

Conclusions

A survey on higher education programmes in Europe (excluding Russia and Ukraine and including Turkey and Israel) which offer courses in environmental chemistry and ecotoxicology indicates that the subjects and programmes of environmental sciences are offered in all except a number of small countries. An additional hidden contribution may exist due to false-negatives (overlooked programmes) in the survey, which are likely.

Environmental chemistry is offered in courses of about 25 % of existing institutions (using an estimate of 1,000 public universities which cover science or technology in Europe). This indicates that environmental chemistry is clearly established as a discipline. This adequately reflects the significance of environmental chemistry for the protection of ecosystems, climate and human health and the assessment of chemical stress. However, environmental chemistry as a programme subject (offered at six universities) is too rare to significantly enhance visibility of this discipline on the European scale.

The programmes offer a wide variety with regard to programme subjects and are hosted by a wide spectrum of faculties (or departments). The chemistry content in these programmes is significant: The majority of BSc programmes have less than 35 % of chemistry credits, while the share of chemistry at the MSc level is very different among

programmes (4–100 %). A big share of the courses, more at the MSc than at the BSc level, is taught in English, which contributes to the Bologna goals. Nevertheless, this share should increase in order to facilitate mobility of students within the EU and across the continent.

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Note It is likely that besides false-negatives (non-detected programmes and no response questionnaires), the collected data may contain erroneous information (misleading links, not official translations of programme names into English language and other types of incorrect information including the possibility that some programmes are outdated at the moment of publication of this article). This can affect to some point the interpretation of the results. The authors cannot be held responsible for this or for any use which can be made of information published here. The goal of the authors was to provide a snapshot of the state of the art in this field of education to the broad community of students, scholars and researchers with the aim to focus the attention of professionals to the developments in environmental chemistry.

Appendix

Questionnaire

1. Are there any bachelor or master programmes in the environmental sciences with emphasis on chemistry, biology, or toxicology at universities in your country? What is the name of the degree?
2. Is it a Bachelor or a Master or another programme?
3. Name of the university?
4. Faculty/Department?
5. Amount of European credit pointes (ECTS, as of 2011)?
6. Name of contact person and email address?
7. Webpage of the programme?
8. Language: To which extent is English used? (none/less than 50 %/more than 50 %/100%)
9. How many credit points are specifically allocated to chemistry?
10. How many credit points are at least to some extent related to chemistry (minimum)?
11. Describe the specialization of your programme

12. Environmental chemists and ecotoxicologists recruit mostly from traditional disciplines while curriculae designed for the training of environmental specialists are rather new. Do you feel that in your country new, multidisciplinary curriculae designed for the training of environmental specialists are significant or increasingly significant for the recruitment of environmental chemists and ecotoxicologists in academia and elsewhere and if so which programme(s)/degree(s) ?
13. Is there any university/curriculum in environmental chemistry and ecotoxicology in Europe which you would tend to rank among the best and most recommendable?
14. Additional comments (if any)

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The Supplementary Material containing an overview of the Higher Education Programmes in environmental sciences with chemistry emphasis has unfortunately been omitted. The online version of this Erratum at Springerlink contains the [Supplementary Materials](#), which is available to authorized users.

The online version of the original article can be found at <http://dx.doi.org/10.1007/s11356-014-2737-7>.

Electronic supplementary material The online version of this article (doi:10.1007/s11356-014-3638-5) contains supplementary material, which is available to authorized users.

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Supplementary Material

Higher Education in Environmental Sciences with Chemistry Emphasis: Bachelor and Master Programmes in Europe

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Table S1. Programmes with environmental chemistry included percentage of courses given in English (a) bachelor, (b) master level

a)

BIH	Banja Luka	Ecology	U (Indep U)	www.nubl.or g	0
BIH	Sarajevo	Health Studies	U	www.fzs.unsa.ba	
CH	Zürich	Env Sci	TU (ETH)	www.usys.et hz.ch/env/in dex_EN	>50
CH	Lausanne	Env Sci & Eng	TU (EPFL)	ssie.epfl.ch	<50
CY	Nicosia	Env Managmt	U		n.d.
CZ	Praha	Env Chem	U (Charles-)	www.natur. cuni.cz/faku Ita/zivotni- prostredi/st udium	<50
CZ	Praha	Env Prot	U (Charles-)	www.natur. cuni.cz/faku Ita/zivotni- prostredi/st udium	<50
D	Osnabrück	Appl Systems Sci	U	www.usf.uos .de/studies/	0
D	Trier	BioGeoAnalysi s	U	www.uni- trier.de/inde x.php?id=22 04	<50
D	Zittau	Ecol & Env Prot	U Appl Sci (Zittau-Görlitz)	www.hszg.d e/studium/un sere- studiengaeng e.html	<50
D	Bingen	Env Eng	U Appl Sci	www.fh- bingen.de/studium/ba chelor/umweltschutz	
D	Bremen	Env Eng, Intl Degree Course	U Appl Sci	www.hs- bremen.de/in ternet/de/stu dium/stg/isu b/verlauf/	<50
D	Giessen	Env Managmt	U	www.uni- giessen.de/c ms/study/co urses/a-z	<50

D	Tübingen	Env Natl Sci	U	www.geo.uni-tuebingen.de/studium.html	0
D	Greifswald	Env Sci	U (Ernst-Moritz-Arndt-)	www.umweltwissenschaften.uni-greifswald.de	0
D	Lüneburg	Env Sci	U (Leuphana U)	leuphana.de/fakultaet-nachhaltigkeit/studium-lehre.html	<50
D	Trier	Env Sci	U	www.univ-trier.de/index.php?id=2204	<50
D	Landau	Env Sci	U (Koblenz-Landau)	bachelor-umweltwissenschaften.de	<50
D	Berlin	Env Sci & Technol	TU		0
D	Bayreuth	Geoecol	U	www.geooek.uni-bayreuth.de/	<50
D	Braunschweig	Geoecol	TU	www.tu-braunschweig.de/geo	<50
D	Tübingen	Geoecol	U	www.geo.uni-tuebingen.de/studium.html	0
D	Münster	Geosci	U	www.uni-muenster.de/Studiengang Geowissenschaftliche	<50
D	Köln	Pharmacl Chem	U Appl Sci	www1.fh-koeln.de/www_f11/studium/01847/	0
D	Berlin	Process & Env Eng	U Appl Sci	www.beuth-hochschule.de/434/detail_lbuv	0
D	Köln	Techn Chem	U Appl Sci	www1.fh-koeln.de/www_f11/studium/01847/	0
D	Essen	Water Sci	U (Duisburg-Essen)	www.uni-due.de/water-science	0
DK	Roskilde	Env Biol	U	www.ruc.dk/en/education/subjects/environmental-biology/	100
E	Barcelona	Agric Env & Landsc Eng	Universitat Politècnica de	http://www.esab.upc.e	0

			Catalunya	du/?set_lan guage=en	
E	Barcelona	Env Biol	U Autònoma	http://www. uab.cat/ http://www. montes.up m.es/ETSI Montes	0
E	Madrid	Env Eng	U Polytech		0
E	Móstoles	Env Eng	U Rey Juan Carlos	http://www. urjc.es/estu dios/grado/i ngenieria_a mbiental	0
E	(various)	Env Sci	U Pais Vasco	http://uhu.e s/noticieros /master- ta/presenta cion/	0
E	Alcalá de Henares	Env Sci	U	http://www. uah.es/amb ientales/est udios/titulac iones.htm	0
E	Avila	Env Sci	U Católica	https://www .ucavila.es	0
E	Barcelona	Env Sci	U Autònoma	http://www. uab.cat/ h~p://www.u co.es/cienci as/ambient ales	0
E	Cordoba	Env Sci	U		0
E	Elche	Env Sci	U Miguel Hernández	http://www. umh.es/fra me.asp?url =/titulacion es/	0
E	Girona	Env Sci	U	http://www. udg.edu	0
E	Granada	Env Sci	U	http://grado s.ugr.es/am ientales/p ages/titulaci on	0
E	Huelva	Env Sci	U	www.uhu.e s/fexp/	0
E	Madrid	Env Sci	U Autònoma	http://www. uam.es/	0
E	Móstoles	Env Sci	U Rey Juan Carlos	http://www. urjc.es/estu dios/grado/i ciencias_a mbientales. html	0
E	Murcia	Env Sci	U		0
E	Salamanca	Env Sci	U	http://fcaa.u sal.es/	0
E	Valencia	Env Sci	U Polytech	http://www. upv.es/titul aciones/GC IA/indexi.ht ml	0

E	Valladolid	Env Sci	U Europea M de Cervantes	http://www.uemc.edu/es/Estudios/Grados/Am bientales/	0
E	Vic	Env Sci	U	http://www.uvic.es/estudiociencias-ambientals	0
E	Vigo	Env Sci	U	http://webs.uvigo.es/	0
E	Villanueva de la Cañada	Env Sci	U Alfonso X El Sabio	http://www.uax.es/	0
E	Valencia	Forest & Env Eng	U Polytech	http://www.upv.es/titulaciones/GI FOMN/	0
E	las Palmas de Gran Canaria	Mar Sci	U	http://www.ulpgc.es/	0
E	Valencia	Mar Sci	U Católica	https://www.ucv.es/estudios_introduccion.asp	0
E	Vigo	Mar Sci	U	http://webs.uvigo.es/	0
F	Bordeaux	Biol & Env	U Bordeaux 1	http://www.u-bordeaux1.fr/formation/formations-2011-2015	0
F	Clermond-Ferrand	Env Instruments	U Auvergne	http://www.u-clermont1.fr/	0
F	Angers	Env Prot	U Catholique de l'Ouest	0	
F	Besançon	Env Prot	U Franche Comté	http://maquettes-lmd3.univ-fcomte.fr	0
F	Caen	Env Prot	U	http://webetu.unicaen.fr/formations-et-etudes/	0
F	Caen	Env Prot	U	http://webetu.unicaen.fr/formations-et-etudes/	0
F	Lille	Env Prot	U	http://formations.univ-lille1.fr/	0
F	Lille	Env Prot	U	http://formations.univ-lille1.fr/	0
F	Lyon	Env Prot	U	http://offre-de-formations.univ-lyon1.fr/fron	0

F	St Etienne	Env Prot	U	t_index.php http://portail. .univ-st- etienne.fr/bi envenue/pr esentation/	0
F	Strasbourg	Env Prot	U	http://www. univ- metz.fr/iut/t hionville- yutz/	100
F	Thionville- Yutz	Env Prot	U Lorraine	http://www. univ- metz.fr/iut/t hionville- yutz/	0
F	Bordeaux	Geo & Env Sci	U Bordeaux 1	http://www. u- bordeaux1.f r/formation/ formations- 2011-2015	0
F	Brest	Geo & Env Sci	U Bretagne Occidentale	http://forma tions.univ- brest.fr	0
F	Cergy- Pontoise	Geo & Env Sci	U	http://www. u- cergy.fr/fr/f ormations/L /STS/e25- 101.html	0
F	St Etienne	Geo & Env Sci	U	http://portail. .univ-st- etienne.fr/bi envenue/pr esentation/	0
F	Nantes	Lif Geo & Env Sci	U	http://www. univ- nantes.fr/37 668479/0/fi che___form ation/	0
F	Pau	Phys Chem Sci & Technol	U	http://licenc e-physique- chimie.univ - pau.fr/live/p arcours/egt	0
F	Paris	Waste Managemt & Treatmt	U Paris 7	http://www. univ-paris- diderot.fr/	0
F	Pau	Water Resource Managemt	U	http://gestio n-eau.univ- pau.fr/live/	0
FIN	Lappeenranta	Env Technol	TU	<50	
GB	Nottingham	Chem & Env Eng	U	http://www. nottingham. ac.uk/ugstu dy/courses/ chemicalan denvironmental engineering/beng- chemical- engineering	100

				-	environmen tal.aspx	
GB	Edinburgh	Chem Env & Sust	U		http://www.ed.ac.uk/studying/undergraduate/degrees?action=programme&code=F140&category=_xml=index.php	100
GB	London	Env & Publ Health	Middlesex U		http://www.mdx.ac.uk/programme/spec	100
GB	Lancaster	Env Chem	U		http://www.lancaster.ac.uk/scitech/undergraduate/Environmental-Chemistry-BSc-Hons	100
GB	Norwich	Env Earth Sci	U East Anglia		http://www.uea.ac.uk/study/undergraduates/degree/detail/bsc-environmental-earth-sciences	100
GB	Cardiff	Env Geosci	U		http://coursesearcher.cardiff.ac.uk/undergraduate/course/detail/F642.html	100
GB	Edinburgh	Env Geosci	U		http://www.ed.ac.uk/studying/undergraduate/degrees?action=programme&code=F630&category=_xml=index.php	100
GB	Manchester	Env Managemt & Sust	Manchester Metropolitan U		http://www2.mmu.ac.uk/study/undergraduate/courses/2013/9934/	100
GB	Bath	Env Sci	Bath Spa U		http://www.bathspa.ac.uk/schools/society-enterprise-	100

					and- environmen t/courses/u ndergradua te/environmental- science	
GB	Birmingham	Env Sci	U		http://www.birmingham.ac.uk/undergraduate/courses/gees/environmental-science.aspx	100
GB	Manchester	Env Sci	Manchester Metropolitan U		http://www2.mmu.ac.uk/study/undergraduate/courses/2013/9930/	100
GB	Manchester	Env Sci	U		http://www.manchester.ac.uk/undergraduate/courses/search2014/atz/course/?code=00219&pg=2	100
GB	Nottingham	Env Sci	Trent U		http://www.ntu.ac.uk/pps_downloadable_content/programme_specification/123210.pdf	100
GB	Nottingham	Env Sci	U		http://www.nottingham.ac.uk/ugstudy/courses/biosciences/bsc-environmental-science.aspx	100
GB	Oxford	Env Sci	Oxford Brookes U		http://www.brookes.ac.uk/studying-at-brookes/courses/undergraduate/2013/environmental-sciences/	100
GB	Plymouth	Env Sci	U		http://www.plymouth.ac.uk/pages/	100

					view.asp?p age=33048 #cc	
GB	Reading	Env Sci	U		http://www.r eading.ac.u k/Study/ug/ Environme ntalScience BSc.aspx	100
GB	Southampto n	Env Sci	U		http://www. southampto n.ac.uk/eng ineering/un dergraduat e/courses/e nvironment al_sciences /f900_bsc_ environment al_science s.page	100
GR	Thessaloniki	Chem	U (Aristoteles U)		www.chem.a uth.gr (not fully updated)	0
GR	Mytilene	Env Sci	U (of the Aegean)		<50	
GR	Mytilene	Marine Sci	U (of the Aegean)		<50	
H	Sopron	Appl Env Sci	U (of West Hungary)		www.emk.n yime.hu;ww w.ttk.nyme.h u	0
H	Veszprém	Env Studies	U (Pannonia)		(detailed document available)	0
HR	Zagreb	Env Sci	U		<i>only in Croatian</i>	0
I	Milano- Bicocca	Env & Landsc Sci & Technol	U		http://www. disat.unimi b.it/index.p hp?lang=it	n.d.
I	Como	Env & Natl Sci	U (of Insubria, Como and Varese)		www.uninsu bria.it/unins ubria/allegati /pagine/9265 /RCS_L32_ SAN_2011_ 2012.pdf	<50
I	Siena	Env & Natural Sci	U		http://www. smfn.unisi.it /smfn_laure e/corso.php ?id=133	n.d.
I	Camerino	Env & Nature Sci & Technol	U School Env Sci		http://www. unicam.it/sc uolascienze ambientali/	n.d.
I	I'Aquila	Env & Nature Sci & Technol	U		http://mesv a.univaq.it/ ?q=aree/sci enze- ambientali	n.d.

I	Pavia	Env & Nature Sci & Technol	U	http://scienze.unipv.it/?pagina=p&titolo=ScienzeNaturali	n.d.
I	Salerno	Env Managemt & Assessmt	U	http://www.unisa.it/facolta/scienze_mmfnn/area_didattiche/scienze_ambientali/index	n.d.
I	Bari- Taranto	Env Sci	U	http://www.scienzetaranto.uniba.it/	n.d.
I	Bologna- Ravenna	Env Sci	U	http://corsi.unibo.it/laura/scienze_ambientali/Pagine/default.aspx	n.d.
I	Caserta	Env Sci	U Napoli 2	http://www.unina2.it/index.php?option=com_content&view=article&id=149:scienze-ambientali&catid=36:corsi-dilaurea&Itemid=284	n.d.
I	Genova	Env Sci	U	http://www.laureestanunige.it/dida/index.php?option=com_content&view=article&id=51&Itemid=260	n.d.
I	Palermo	Env Sci	U	www.scienze.unipa.it/scienzeambientali	<50
I	Roma	Env Sci	U la Sapienza	http://www.dst.uniroma1.it/sciterra/CAD/ScienzeAmbientali_ho.htm	n.d.
I	Trieste	Env Sci	U	http://www2.units.it/sciamb/	n.d.
I	Tuscia- Viterbo	Env Sci	U	http://www.deb.unitus.it/web/interna.asp?idCa	n.d.

I	Venezia	Env Sci	U (Ca'Foscari)	t=396 www.unive.it/nqcontent.cfm?a_id=47988	<50
I	Ancona	Env Sci & Civil Prot	U	http://www.scienze.univpm.it	n.d.
I	Alessandria	Env Sci & Landsc Managemt	U Piemonte-Orientale	http://www.mfn.unipmn.it/Informazioni/Offerta/Corsi%20di%20Laurea%20triennale%20a.a./Scienze%20ambientali%20e%20gestione/default.aspx	n.d.
I	Lecce	Env Sci & Technol	U	https://www.scienzemfn.unisalento.it/cdl_scienze_tpa	n.d.
I	Padova	Env Sci & Technol	U	http://www.chimica.unipd.it/?conte xt=504	n.d.
I	Sassari	Forest & Env Sci	U (sede Nuovo)		n.d.
I	Parma	Nature & Env Sci	U	http://scienzenatamb.unipr.it/cgi-bin/campusnet/home.pl	n.d.
I	Trieste	Sci & Technol for Nature & Env	U	www.units.it/stan	0
IRL	Dublin	Earth Sci	U (Trinity College)	www.naturalscience.tcd.ie	100
IRL	Dublin	Env Sci	U (Trinity College)	www.naturalscience.tcd.ie	100
N	Bodö	Bio	U (of Nordland)	www.uin.no/english/about/faculties/fba	100
NL	Utrecht	Earth Sci	U	www.uu.nl/bachelors/o pleidingen/interessege bied/aarde-en-milieu-14	0
NL	Breda, s'Hertogenbosch, Tilburg	Env Sci f Sust En & Technol	Avans Hogeschool		100

NL	Wageningen	Soil Wt Atmos	U	www.wagen ingenur.nl/nl /Onderwijs- Opleidingen /Studiekieze rs- bachelor/BS c- opleidingen/ BSc-Bodem- Water- Atmosfeer.h tm	0
P	Braganca	Env Eng	TU (Polytech I of Braganca)	portal.ipb.pt	<50
P	Faro	Env Eng	U (of the Algarve)	www.fct.ual g.pt/cursos/1 c/ea/plano	<50
P	Lisboa	Env Eng	TU	www.isa.utl. pt/home/nod e/3712	<50
P	Leiria	Mar Bio & Biotechnol	TU (Polytech I of Leiria)	www.ipleiria .pt/portal/ipl eiria?p_id=1 8245	<50
PL	Gdánsk	Biotechnol	TU	www.pg.gda .pl/chem	>50
PL	Gdánsk	Chem	TU	www.pg.gda .pl/chem	>50
PL	Torún	Chem	U (Nicolaus Copernicus U)	www.chem. umk.pl	<50
PL	Gdánsk	Chem Technol	TU	www.pg.gda .pl/chem	>50
PL	Gdánsk	Env Prot Technol	TU	www.pg.gda .pl/chem	>50
RO	Oradea	Ecol & Env Prot	U	stiinte.uorad ea.ro/ro/inde x_ro.htm	0
RO	Pitesti	Ecol & Env Prot	U	www.upit.ro	0
RO	Suceava	Ecol & Env Prot	U (Stefan cel Mare U)	silvic.usv.ro/	0
RO	Craiova	Env Chem	U	cis01.central .ucv.ro/chim ie/educatie/p lanuri.htm	0
RO	Oradea	Env Geogr	U	stiinte.uorad ea.ro/ro/inde x_ro.htm	0
RO	Suceava	Forestry	U (Stefan cel Mare U)	silvic.usv.ro/	0
RO	Galati	Sci of Env	U (Dunarea de Jos U)	www.ugal.sc iences.ro (in Romanian)	0
S	Linköping	Env Sci	U	www.liu.se/ utbildning/pr ogram/miljo vetenskap?l= sv	<50
S	Stockholm	Env Sci	U	www.itm.su. se/page.php?	Englis h is

					pid=104&la ng=en	used if there is a non- Swedis h student in the course.
S	Kalmar	Env Sci - Env Analytics	U (Linnaeus U)	Inu.se/utbild ning/progra m/NGMIC	<50	
SK	Bratislava	Env Sci	U (Comenius U)			
SLO	Nova Gorica	Env	U	www.ung.si/ en/study/sch ool-of- environment al- sciences/stud y	n.d.	
SRB	Kragujevac	Chem - Env Prot	U	chem.pmf.kg .ac.rs/index. php?option= com_content &v	<50	
SRB	Novi Sad	Chem Qual Ctrl & Env Managmt	U	http://www. pmf.uns.ac.r s/files/2/pmf -	0	
SRB	Belgrade	Env Chem	U	informator_2 012_final http://chem. bg.ac.rs/stud ije4-sr.html	<50	
SRB	Novi Sad	Env Prot Analyst	U	www.pmf.un s.ac.rs/files/2 /pmf- informator_2 012_final	0	
b)						
A	Wien	Env Sci	U	envsc.univie. ac.at	100	
B	Gent	Env Technol	U	studiegids.u gent.be/2011 /EN/FACUL TY/I/MABA /IMMI	<50	
BIH	Banja Luka	Ecology	U (Indep U)	www.nubl.or g	0	
BIH	Sarajevo	Health Studies	U	www.fzs.unsa.ba		
CH	Genève	Env Sci	U	www.unige. ch/muse/Pro grammeMU SE.html	0	
CH	Zürich	Env Sci	TU (ETH)	www.usys.et hz.ch/env/in dex_EN	>50	
CZ	Brno	Bio	U (Masaryk U)	www.muni.c z/study/field	<50	

CZ	Brno	Env Chem	U (Masaryk U)	s/584?lang=en, http://www.muni.cz/study/fields/675?lang=en	www.muni.cz/study/field s/671?lang=en, is.muni.cz/ec ts/obor_ects. pl?obor_id=671	<50
CZ	Praha	Env Chem	U (Charles-)	www.natur.c uni.cz/fakult a/zivotni- prostredi/stu dium	www.natur.c uni.cz/fakult a/zivotni- prostredi/stu dium	<50
CZ	Praha	Env Prot	U (Charles-)	www.natur.c uni.cz/fakult a/zivotni- prostredi/stu dium	www.natur.c uni.cz/fakult a/zivotni- prostredi/stu dium	<50
D	Trier	BioGeoAnalysi s	U	www.uni- trier.de/inde x.php?id=22 04	www.uni- trier.de/inde x.php?id=22 04	<50
D	Zittau	Biotech & Appl Ecol	U Appl Sci (Zittau-Görlitz)	www.hszg.d e/studium/un sere- studiengaeng e.html	www.hszg.d e/studium/un sere- studiengaeng e.html	<50
D	Zittau	Chem & Energy	U Appl Sci (Zittau-Görlitz)	www.hszg.d e/studium/un sere- studiengaeng e.html	www.hszg.d e/studium/un sere- studiengaeng e.html	<50
D	Zittau	Ecol & Env Prot	U Appl Sci (Zittau-Görlitz)	www.hszg.d e/studium/un sere- studiengaeng e.html	www.hszg.d e/studium/un sere- studiengaeng e.html	<50
D	Aachen	Ecotox	TU	www.bio5.r wth- aachen.de/i mages/storie s/2010-104, www.bio5.r wth- aachen.de/i mages/storie s/2010- 104.pdf	www.bio5.r wth- aachen.de/i mages/storie s/2010- 104.pdf	<50
D	Landau	Ecotox	U (Koblenz- Landau)	master- ecotoxicolog y.de	master- ecotoxicolog y.de	100
D	Tübingen	Env & Applied Geosci	U	www.geo.un i- tuebingen.de /studium.ht ml	www.geo.un i- tuebingen.de /studium.ht ml	100

D	Giessen	Env & Resource Managmt	U	www.uni-giessen.de/cms/study/courses/a-z	<50
D	Halle	Env Analysis & Env Chem	U (Martin-Luther U Halle-Wittenberg)	www.natfak2.uni-halle.de/studiedekanat/Module/	0
D	Trier	Env Assessmt	U	www.uni-trier.de/index.php?id=2204	<50
D	Cottbus	Env Eng	TU (Brandenburg Technol)	U of	<50
D	Hamburg	Env Eng	TU (Hamburg-Harburg)	www.tuhh.de/alt/tuhh/education	100
D	Bremen	Env Eng, Intl Degree Course	U Appl Sci	www.hs-bremen.de/internet/de/studium/stg/ism/verlauf/www.pep.uni-bremen.de	<50
D	Bremen	Env Phys	U	www.hfwu.de/de/3flus/umweltschutz.html	100
D	Nürtingen, Esslingen, Reutlingen	Env Prot	U Appl Sci (Nürtingen-Geislingen)	www.hfwu.de/de/3flus/umweltschutz.html	0
D	Frankfurt	Env Sci	U	www.uni-frankfurt.de/studium/.../master/umwelt/index.html	0
D	Jena	Env Sci	U (Friedrich Schiller U)	www.uni-jena.de/Cemie_p_132696.html	n.d.
D	Landau	Env Sci	U (Koblenz-Landau)	master-umweltwissenschaften.de	>50
D	Berlin	Env Sci & Technol	TU		0
D	Hamburg	Env Sci (Joint European Master)	TU (Hamburg-Harburg)	www.tuhh.de/alt/tuhh/education	100
D	Essen	Env Toxicol	U (Duisburg-Essen)	www.unidue.de/envitox	100
D	Bayreuth	Geoecol	U	www.geooek.uni-bayreuth.de/	n.d.
D	Braunschweig	Geoecol	TU	www.tu-braunschweig.de/geo	<50
D	Tübingen	Geoecol	U	www.geo.uni-tuebingen.de/studium.htm	100

D	Münster	Geosci	U	ml www.uni-muenster.de/Studiengang Geowissenschaften	<50
D	Hamburg	Integrated Clim Sy Sci	U	<u>www.klimacampus.de/sicss.html</u>	100
D	Zittau	Integrated Sustainability Managemt	U Appl Sci (Zittau-Görlitz)	www.hszg.de/studium/unseren-studiengaenge.html	<50
D	Lüneburg	Sustainability Sci	U (Leuphana U)	leuphana.de/fakultaet-nachhaltigkeit/studium-lehre.html	<50
D	Essen	Transnational Ecosystem-based Water Management	U (Duisburg-Essen) + U Nijmegen/NL (RU)	www.uni-due.de/twm	100
D	Essen	Water Sci	U (Duisburg-Essen)	www.uni-due.de/water-science	100
DK	Roskilde	Env Biol	U	www.ruc.dk/en/education/subjects/environmental-biology/ (as of 2013)	100
DK	Roskilde	Env Risk Anal & Managemt	U	http://web.ua.es/en/mage/m/	0
E	Alicante	Mediterranean Ecosystems			
E	Valencia	Assessmt & Monitg Mar & Coastal Ecosy	U Poytech	http://www.upv.es/titulaciones/MUE SAEYC/index.html	0
E	Zaragoza	Chem & Env Eng	U		0
E	(various)	Ecosy Biodiv Fct & Managemt	U Pais Vasco	http://www.masterbiodiversidad.ehu.es/p115-1999/es	0
E	Girona	Env	U	http://www.udg.edu/masterdiambiente	0
E	Santiago de Compostela	Env & Natl Resources	U	http://www.usc.es/es/centros/bioloxia/	0
E	(various)	Env Agrobio	U Pais Vasco	http://www.agrobiologiaambiental.ehu.es	0
E	Alicante	Env Chem &	U	http://dqana.	0

		Sust		ua.es/en/		
E	Badajoz	Env Contam	U Extremadura	http://www.unex.es/	0	
E	(various)	Env Contam & Toxicol	U Pais Vasco	http://www.cta.ehu.es/p159-1999/es	100	
E	Madrid	Env Eng	U Polytech	http://138.100.47.47/mast erambiental/	0	
E	S Antonio	Env Eng	U Católica Murcia	http://www.ucam.edu/est udios/postgrados	0	
E	Valencia	Env Eng	U Polytech	http://www.upv.es/titulaciones/MUIAM	0	
E	Cartagena	Env Eng & Chem & Biotechnol Processes	U Polytech	http://www.upct.es/~doc tiqua/	0	
E	Tarragona	Env Eng & Sust Prod	U Rovira i Virgili	http://www.urv.cat/masters_oficiais/	0	
E	Avila	Env Sci & Sust	U Católica	https://www.ucavila.es	0	
E	Valladolid	Env Sci & Sust	U Europea M de Cervantes	https://www.ucavila.es	0	
E	Barcelona	Env Studies	U Autònoma	http://icta.uab.es/formacion/master.js	0	
E	Barcelona	Env Studies - Cities & Sust	U Autònoma	http://jemes.eu/	100	
E	(various)	Mar Env & Resources	U Pais Vasco	http://www.mer.ehu.es/p160-2000/es	100	
E	Elche	Mediterr Ecosy Analysis & Managemt	U Miguel Hernandez	http://www.umh.es/frame.asp?url=/menu.asp?estudios	0	
E	Badajoz	Sust Ch	U Extremadura	http://www.unex.es/	0	
F	Créteil	Air	U Paris 12	http://sciences-tech.ups-pec.fr/formations/masters	0	
F	Bordeaux	Env Sci & Sust	U Bordeaux 1	http://www.u-bordeaux1.fr/formation/formations-2011-2015	0	
F	Créteil	Aquatic Sy & Managemt	U Paris 12	http://sciences-tech.ups-pec.fr/formations/masters	0	
F	Créteil	Biol Env Eng	U Paris 12	http://sciences-tech.ups-pec.fr/formations/masters	0	

F	Pau	Chem Sci & Technol	U	http://dep-chimie.univ-pau.fr/live/master-cate-save	0
F	Pau	Chem Sci & Technol	U	http://dep-chimie.univ-pau.fr/live/master-cate-egtp	0
F	Angers	Ecol & Env	U		0
F	Besançon	Ecosy & Env	U Franche Comté	http://maquettes-lmd3.univ-fcomte.fr	0
F	Lille	Env	U Catholique	http://flst.icl-lille.fr/formations/	0
F	Nantes	Env & En Eng Proj Managemt	École des Mines	http://www.mines-nantes.fr/en/Formations	100
F	Mulhouse	Env Eng	U Haute Alsace	http://www.fst.uha.fr/?page=formations&idformat ion=7	0
F	Créteil	Env Heritage	U Paris 12	http://sciences-tech.upsaclay.fr/formations/masters	0
F	Cergy-Pontoise	Env Sci	U	http://www.u-cergy.fr/fr/formations/M/STS/	0
F	Angers	Env Sci & Eng	U	http://www.univ-angers.fr/	0
F	Créteil	Env Sci & Managemt	U Paris 12	http://sciences-tech.upsaclay.fr/formations/masters	0
F	Besançon	Sust Ch	U Franche Comté	http://maquettes-lmd3.univ-fcomte.fr	0
F	Angers	Env Toxicol	U		0
F	Bordeaux	Geo & Env Sci	U Bordeaux 1	http://www.u-bordeaux1.fr/formation/formations-2011-2015	0
F	Bordeaux	Geo Env & Ecol Sci	U Bordeaux 1	http://www.u-bordeaux1.fr/formation/formations-2011-2015	0
F	Bordeaux	Geo Env &	U Bordeaux 1		0

		Ecol Sci				
F	Besançon	Geo & Env Sci	U Franche Comté	http://scienvir.univ-fcomte.fr	0	
F	Besançon	Geo & Env Sci	U Franche Comté	http://maquettes-lmd3.univ-fcomte.fr	0	
F	Thionville-Yutz	Master Environnement et Aménagement - spécialité Génie de l'environnement	U Lorraine	http://www.sciifa.univ-metz.fr	0	
F	Paris	Phys Chem Eng Env Qual	U Paris 13	http://www.univ-paris13.fr/DUT-licence-master.html	0	
F	Paris	Sci & Technol Living Env	AgroParisTech	http://www.agroparistech.fr/	0	
F	Cergy-Pontoise	Urb & Ind Env Sci	U	http://www.u-cergy.fr/formations/M/STS/f44-103.html	0	
FIN	Jyvaskylä	Chem	U	www.jyu.fi/kemia/totkimus/uusiutuvava-energia.en	n.d.	
FIN	Helsinki	Env & Natl Resources	U	www.helsinki.fi/menvisci.utu.fi/envsci/education/	100	
FIN	Turku	Env Sci	U	www.helsinki.fi/urban	100	
FIN	Lappeenranta	Env Technol	TU		<50	
FIN	Helsinki	Multidisc Studies Urban Env Issues	U	www.helsinki.fi/urban	100	
FIN	Jyvaskylä	Renewable Energy (Intl Master Progr)	U	www.jyu.fi/kemia/totkimus/uusiutuvava-energia.en	n.d.	
GB	Lapeenranta	Anal Chem & Env Sci	U	http://www.lboro.ac.uk/study/postgraduate/courses/departments/chemistry/analyticalchemistryandenvironmentalscience/	100	
GB	Manchester	Chem Eng Env Technol	U	http://www.manchester.ac.uk/undergr	100	

GB	Edinburgh	Chem Env & Sust	U	aduate/courses/search2014/atoz/03853/chemical-engineering-with-environmental-technology-4-years-meng/factfile/	http://www.ed.ac.uk/studying/undergraduate/degrees?action=programme&code=F144&cw_xml=index.php	100
GB	Manchester	Env & Sust Technol	U	aduate/degreees?action=programme&code=F144&cw_xml=index.php	http://www.manchester.ac.uk/postgraduate/taught_degrees/courses/atoz/course/?code=08410&pg=2	100
GB	Lancaster	Env Chem	U	aduate/Enviranmental-Chemistry-MChem-Hons	http://www.lancaster.ac.uk/sci-tech/undergraduate/Environmental-Chemistry-MChem-Hons	100
GB	Norwich	Env Earth Sci	U	East Anglia	http://www.uea.ac.uk/study/undergraduate/degree/detail/msci-environmental-earth-sciences	100
GB	Cardiff	Env Geosci	U		http://coursefinder.cardiff.ac.uk/undergraduate/course/detail/F645.html	100
GB	London	Env Managemt & Sust Dvpt	Manchester Metropolitan U		http://www2.mmu.ac.uk/study/postgraduate/taught/2013/10197/	100
GB	Birmingham	Env Monitorg for Mangemt	U		http://www.boro.ac.uk/study/postgraduate/courses/	100

GB	London	Env Poll Ctrl	Middlesex U	departments/ geography/e nvironmenta lmonitoringf ormanageme nt/ http://www. mdx.ac.uk/A ssets/Enviro nmental%20 Pollution%2 0Control%2 0-%20PGCert %20C%20PG Dip%20MSc .pdf	100
GB	Birmingham	Env Sci	U	http://www.birmingham.ac.uk/undergrad eate/cour ses/gees/envi ronmental- science.aspx	100
GB	Loughborou gh	Env Studies	U	http://www.l boro.ac.uk/st udy/postgrad uate/courses/ departments/ chemistry/en vironmental studies/	100
GB	London	Toxicol & Risk Assessmt	Brunel U	http://www. brunel.ac.uk/ courses/post graduate/B2 0PTOXRIS K	100
GR	Mytilene	Agric & Env	U (of the Aegean)		<50
GR	Mytilene	Env & Ecol Eng	U (of the Aegean)		<50
GR	Thessaloniki	Env Chem	U (Aristoteles U)	www.chem.a uth.gr (not fully updated)	0
GR	Iraklion	Env Prot Technol	U (Crete)	www.teicret e.gr/teprop/	Englis h is only used if there is a non- Greek student in the course.
GR	Iraklion	Env Sci	U (Crete)	ecpl.chemist ry.uoc.gr/ese /gr/index.ht m	Englis h is only used if there is a non- Greek

					student in the course.
H	Sopron	Env Sci	U (of West Hungary)	www.emk.n yme.hu;ww w.ttk.nyme.h u	0
H	Veszprém	Env Sci	U (Pannonia)	(detailed document available)	<50
H	Sopron	Teacher of Env Sci	U (of West Hungary)	www.emk.n yme.hu;ww w.ttk.nyme.h u	0
HR	Zagreb	Env Sci	U	<i>only in Croatian</i>	0
I	Sassari	Env & Landsc Managemt	U		n.d.
I	Caserta	Env & Landsc Sci & Technol	U Napoli 2	http://www.unina2.it/index.php?option=com_content&view=article&id=149:scienze-ambientali&catid=36:corsi-di-laurea&Itemid=284	n.d.
I	Milano-Bicocca	Env & Landsc Sci & Technol	U	http://www.disat.unimib.it/index.php?lang=it	n.d.
I	Parma	Env & Resources Sci & Technol	U	http://scienzenatamb.unipr.it/cgi-bin/campusnet/home.pl	n.d.
I	Lecce	Env Impact Assessment & Certification	U	https://www.scienzemfn.unisalento.it/cdl_scienze_tp	n.d.
I	Roma	Env Monitorig & Remediation	U la Sapienza	http://www.dst.uniroma1.it/sciterra/AD/Scienze Ambientali_index.htm	n.d.
I	Como	Env Sci	U (of Insubria, Como and Varese)	www.uninsubria.it/uninsubria/allegati/pagine/11619/MAG_SA.PD	<50
I	Palermo	Env Sci	U	www.scienze.unipa.it/scienzeambientali	<50
I	Pisa	Env Sci	U	http://www.dst.unipi.it/s	n.d.

I	Salerno	Env Sci	U	cienzeamb/ http://www.unisa.it/facolta/scienze_m mffnn/aree_didattiche/scienze_ambientali/index	n.d.
I	Trieste	Env Sci	U	http://www2.units.it/sciamb/	n.d.
I	Venezia	Env Sci	U (Ca'Foscari)	www.unive.it/nqcontent.cfm?a_id=53530	<50
I	Padova	Env Sci & Technol	U	http://www.chimica.unipd.it/?context=504	n.d.
I	Genova	Marine Sci	U	http://www.laureestan.unige.it/dida/index.php?opti on=com_content&view=a rticle&id=51&Itemid=260	n.d.
I	Udine	Sci & Technol for Env & Landscape	U		<50
I	I'Aquila	Terr Ecosy & Inland Wt Managemt	U	http://mesva.univaq.it/?q =aree/scienze-ambientali	n.d.
IL	Rehovot	Chem	Weizmann I of Sci	www.weizmann.ac.il/pag es/feinberg-graduate- school	100
IRL	Dublin	Env Sci	U (Trinity College)	www.natural science.tcd.ie	100
N	Aas	Chem (Org Env Chem)	U (Norwegian U of Life Sci)	www.umb.no/study- options/ele ments/studpro g-tekst	<50
N	Stavanger	Env Technol	U	www.uis.no/study_programmes/degree e_programmes_in_english/environmental_engineering	n.d.
N	Trondheim	Env Toxicol & Chem	TU (Norwegian U Sci & Technol)	www.ntnu.edu/studies/m senvitox	>50
N	Bodö	Marine Ecol	U (of Nordland)	www.uin.no/english/about/faculties/	100

N	Aas	Radioecol	U (Norwegian U of Life Sci)	fba www.maters portal.eu/stu dents/browse /programme	<50
NL	Nijmegen	Biology	Radboud U	100	
NL	Wageningen	Earth Env	U	www.wagen ingenur.n/en /Education- Programmes /prospective- master- students/MS c- programmes/ MSc-Earth- and- Environment .htm	n.d.
NL	Utrecht	Earth Life Climate	U	www.uu.nl/u niversity/inte rnational- students/en/p rogrammes/ mastersprogr ammes/elc/P ages/default. aspx	n.d.
NL	Amsterdam	Earth Sci	VU	www.vu.nl/e n/programm es/internatio nal- masters/prog rammes/e-f/	100
NL	Utrecht	Earth Surface Wt	U	www.uu.nl/u niversity/inte rnational- students/EN/ programmes/ mastersprogr ammes/ESW /Pages/defau lt.aspx?refer =/programm es/esw	n.d.
NL	Amsterdam	Ecol	VU	www.vu.nl/e n/programm es/internatio nal- masters/prog rammes/e-f/	100
NL	Amsterdam	Env Resource Managemt	VU	www.vu.nl/e n/programm es/internatio nal- masters/prog rammes/e-f/	100
NL	Wageningen	Env Sci	U	www.wagen ingenur.n/en /Education- Programmes	n.d.

				/prospective- master- students/MS c- programmes/ MSc- Environment al- Sciences.ht m	
P	Faro	Env Eng	U (of the Algarve)	www.fct.ual g.pt/cursos/1 c/ea/plano	<50
P	Lisboa	Env Eng	U	www.isa.utl. pt/home/nod e/3712	<50
P	Leiria	Mar Bio & Biotechnol	TU (Polytech I of Leiria)	www.ipleiria .pt/portal/ipl eiria?p_id=1 8245	<50
PL	Gdánsk	Biotechnol	TU	www.pg.gda .pl/chem	>50
PL	Gdánsk	Chem	TU	www.pg.gda .pl/chem	>50
PL	Torún	Chem	U (Nicolaus Copernicus U)	www.chem. umk.pl	<50
PL	Gdánsk	Chem Technol	TU	www.pg.gda .pl/chem	>50
PL	Gdánsk	Env Prot Technol	TU	www.pg.gda .pl/chem	>50
RO	Timisoara	Env & Natl Resources Managemt	Banat U Agric Sci & Veterinary Med	usab- tm.ro/USA MVBT_Mas ter_ro_16.ht ml	<50
RO	Galati	Env Managemt & Monitoring	U (Dunarea de Jos U)	www.ugal.sc iences.ro (in Romanian)	0
RO	Craiova	Env Quality	U	cis01.central .ucv.ro/chim ie/educatie/p lanuri.htm	0
S	Göteborg	Atmos Sci	U	www.scienc e.gu.se/engl ish/education /master/atmo sp	100
S	Uppsala	Bio	U	www.ibg.uu. se/master/bi ology/Enviro nmental_To xicology	100
S	Umea	Chem	U	www.umu.se /english/edu cation/maste r/programme -	n.d.
S	Göteborg	Ecotox	U	page?code= NAKEM	100
				www.scienc e.gu.se/engl ish/education	

S	Linköping	Env Sci	U	/master/ecotoxicology www.liu.se/en/education/master/progr ammes/F7M SU?l=en	100
S	Stockholm	Env Sci	U	www.itm.su. se/page.php? pid=104&la ng=en	English is used if there is a non- Swedish student in the course.
S	Kalmar	Env Sci- Env Risk Analysis	U (Linnaeus U)	lnu.se/utbild ning/program/NGMIC lnu.se/utbild ning/program	<50
S	Umea	Geoecol	U	http://www.e mg.umu.se/e nglish/educa tion/program mes/pr	100
SK	Bratislava	Env Geochem	U (Comenius U)		<50
SK	Bratislava	Nature Conserv & Use	U (Comenius U)		<50
SK	Bratislava	Soil Sci	U (Comenius U)		<50
SLO	Ljubljana	Ecotechnol	Jozef Stefan Intl Postgrad School	www.mps.si/ splet/studij.a sp?lang=eng &main=1&l eft=	100
SLO	Nova Gorica	Env	U	www.ung.si/ en/study/sch ool-of- environment al- sciences/stud y	n.d.
SRB	Nis	Appl Chem	U		0
SRB	Novi Sad	Chem Qual Ctrl & Env Managmt	U	www.pmf.un s.ac.rs/files/2 /pmf- informator_2 012_final	0
SRB	Belgrade	Ecol	U	www.bio.bg. ac.rs/nastava /diplomske_ akademske_ studije.html	0
SRB	Nis	Ecol & Env Prot	U	www.pmf.ni .ac.rs	0
SRB	Belgrade	Env Chem	U	http://chem. bg.ac.rs/stud ije/4-sr.html	<50
SRB	Novi Sad	Env Prot Analyst	U	http://www. pmf.uns.ac.r	0

				s/files/2/pmf	
				-	
TR	Izmir	Env Eng	TU (Inst. of Technol.)	informator_2 012_final www.iyte.ed u.tr/environ/	100
TR	Ankara	Pharmac Toxicol	U (Gazi U)		n.d.
TR	Bornova	Pharmac Toxicol	U (Ege U)		Englis h is only used if there is a non- Turkis h student in the course.
TR	Ankara	Pharmac'l Toxicol	U	www.sagibile ns.ankara.ed u.tr	Engl. is only used if there is a non- Turkis h student in the course