

Educational Programme	<b>Chemical Control of Environmental Quality and Remediation Techniques</b>
Degree Awarded	Master in Chemistry
Standard Length of Studies (Number of ECTS Credits)	2 years – 4 semesters – 120 ECTS
Type of Study	Full time learning
Higher Education Institution	Babeş-Bolyai University
Faculty / Department	Faculty of Chemistry and Chemical Engineering
Contact Person	Assoc. prof. Maria Stanca PhD
Phone	+40 (264) 593833, ext. 5656
Fax	+40 (264) 590180
E-mail	mstanca@chem.ubbcluj.ro
Profile of the Degree Programme	Chemical Control of Environmental Quality and Remediation Techniques degree program
Target Group / Addressees	Graduates in Chemistry, Chemical Engineering, Environmental Science, Physics, Biology.
Entrance Conditions	Entrance is done based on the weighted average calculated as 75 % of the overall undergraduate average and 25% of the average graduation exam. <i>Additional Criterion:</i> Candidates have to present a Linguistic Proficiency Certificate for a foreign.
Further Education Possibilities	The master's programme aims at providing students with the appropriate tools for further doctoral studies and to become professional experts in the field.
Description of Study	The master's program in <b>Chemical Control of Environmental Quality and Remediation Techniques</b> allows students to acquire fundamental knowledge and expertise in a multidisciplinary area, including chemistry, chemical engineering, environmental science and biotechnology. <i>Core courses:</i> Physical and chemical bases of environmental processes, Organic Chemistry – Natural Compounds and Industrial Pollutants, Environmental Monitoring by Modern Analytical Methods, Electrochemical Synthesis of Materials Used in Environmental Protection, Control of Environmental Pollution and Remediation Techniques, Advanced Technologies in Environmental Remediation, Organometallic Compounds in Environment, Bioprocesses in Environmental Protection, Analysis by Chemical Speciation, Assessment of Risk Factors with Impact on Environment
Purposes of the Programme	The program provides theoretical and experimental training in the area of the chemical control of environment and advanced remediation technologies, aiming to prepare specialists in a multidisciplinary domain involving chemistry, chemical engineering, environmental science and biotechnology.

Specialization / Area of Expertise	The curriculum of this program provides basic training in the area of chemical control of environment and remediation technologies, both theoretical and especially practical, namely, in the field of modern analytical methods, development of durable technologies, basic information in the environmental legislation and accreditation requirements of environmental laboratories, advanced technologies used in the environmental remediation.
Extra Peculiarities	-
Practical Training	Throughout the course students are required to undertake the research work at Babeş-Bolyai University, industrial companies, laboratories of chemical analysis in the country or abroad.
Final Examinations	Research master thesis
Gained Abilities and Skills	<ul style="list-style-type: none"> <li>- Acquiring main analytical methods used in environmental control</li> <li>- Knowledge of advanced technologies used in the environmental remediation</li> <li>- Deep knowledge of main inorganic and organometallic pollutants and their analysis using speciation analysis</li> <li>- Becoming familiar with some aspects regarding assessment of risk factors with impact on environment</li> <li>- Specific concepts ensuring good collaboration between analytical chemists and engineers involved in the environmental control and remediation activities.</li> </ul>
Job Placement, Potential Field of Professional Activity	<p>The course is designed to equip students with the skills required for a career in research (industry and laboratories) and in institutions with concerns about environmental quality.</p> <p>Job Placement</p> <p>Laboratories for Environmental Analysis</p> <p>Research Laboratories in the Environmental Protection</p> <p>Wastes Treatment Companies</p> <p>Environmental Protection Agencies</p> <p>On condition of promoting The Program of Psycho-Pedagogical Studies 2<sup>nd</sup> Level, the holder of this certificate can work as a teacher in the educational system.</p>

Date: 28.10.2010

Signature: