

Educational Programme	Hydrology-Meteorology
Degree Awarded	Bachelor
Standard Length of Studies (Number of ECTS Credits)	3 years - 6 semesters - 180 ECTS
Type of Study	Full-Time
Higher Education Institution	Babes-Bolyai University
Faculty / Department	Faculty of Geography
Contact Person	Prof. PhD Pandi Gavril, Lecturer PhD Bătinaş Răzvan
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Profile of the Degree Programme	Geography
Target Group / Addressees	Graduates of secondary education with basic level of knowledge in meteorology and hydrology wishing to further develop competencies in this field.
Entrance Conditions	50% baccalaureate examination score + 50% average grade of all four years of high school.
Further Education Possibilities	Master Studies, PhD Studies
Description of Study	Mission of this specialty is a result of a good comprehensive understanding of hydrological and meteorological processes and phenomena, based on statistic and particular analysis, towards forecasting activity and water resources management.
Purposes of the Programme	<ol style="list-style-type: none"> 1. Train specialized students by assuring basic competencies associated with the sciences of atmosphere and hydrosphere; 2. Assuring a proper skill force for Romania's forecasting staff (in the mentioned sector), enabling graduates to satisfy work-place criteria with multidisciplinary traits in field activities for monitoring, investigation, evaluation and valuation of collected data; 3. Assuring quality preparation by relating the acquired skills to the specific sector demands regarding advanced knowledge in hydrology and climatology, supported by computer aided software and particular work methodology; 4. Ensure compatibility in the preparation of local specialists with European Union quality standard by following similar study programs with those developed in other major European universities; 5. Develop high level competencies which will allow the graduates students to strengthen their knowledge by following master's and doctoral degree studies; 6. Ensure the training of students in the present study programme as to be able to become potential researchers and professors in higher education institutions.

Specialization / Area of Expertise	<p>The holder of the diploma of Geography in the specialization of Hydrology - Meteorology can work in any budgetary institution or private company with focusing activity related to the monitoring of hydrologic and atmospheric environment, to accomplish the following professional roles: <i>Hydrologist</i> (which monitors the discharge and water volumes of rivers and lakes and makes forecasting appreciation regarding the future evolution of specific parameters); <i>Chief Hydro-meteorologist</i> (assure a good work correlation between the two science fields by monitoring the specific activity and by taking proper measure for best water resources management); <i>Meteorologist</i> (particular field and office activity for monitoring weather and atmosphere processes); <i>Aeronautic meteorologist</i> (assures the monitoring of weather parameters on an airport area, for best and safe condition related to planes' traffic); <i>Environment Technician</i> (analyst for quantitative and qualitative resources of hydro- and atmospheric environment) . On condition of promoting The Program of Psycho-Pedagogical Studies Ist Level, the holder of this certificate can work as a teacher in the obligatory pre-university educational system.</p>
Extra Peculiarities	-
Practical Training	<p>Internship of 90 hours for second semester Internship of 90 hours for fourth semester Internship of 30 hours for sixth semester</p>
Final Examinations	Research thesis
Gained Abilities and Skills	<p>I. General competences</p> <p>The expansion of the specialized vocabulary and acquaintance with various terms, which are found in other disciplines to be studying in the following series of studies (university and postgraduate).</p> <p>The knowledge of water circulation in nature, as a sequence of complex processes and phenomena that take place in atmosphere, at to the land surface and below the earth's crust.</p> <p>The knowledge of the regime of meteorological and hydrological parameters depending on geographical location and particularities in the territory of Romania;</p> <p>The understanding of the role of the meteorological and hydrological parameters monitoring activity and of the forecasts activity, to reduce the effects of climatic and hydrological risk phenomena;</p> <p>The knowledge of the European and international regulations regarding the recovery and protection of the climate and hydrological components of the environment.</p> <p>II. Speciality competences</p> <p>The possession of knowledges to make various land (measurements and meteorological and hydrological) topometrical and bathymetrical measurements, installati</p>

	<p>automated stations, etc.), using the latest generation e technology;</p> <p>The possession of knowledges to perform various specific office applications (primary processing of the result data, preparation of meteorological and hydrological annual studies, thematic synthesis and regionalization achievements etc.);</p> <p>The skills needed for the IT application accomplishments (GIS) of climatic and hydrological elements analysis, classification and modeling using digital databases, including satellite images;</p> <p>The ability to draw up specific thematic projects basis of requests from various customers, including local authorities;</p> <p>The knowledge possession to address the related departments of marketing profile in weather and the water management.</p>
<p>Job Placement, Potential Field of Professional Activity</p>	<p>The graduate of the specialization Hydrology - Meteorology can work in: departments of Meteorological National Administration, National Institute of Hydrology and Water Management and National Company „Apele Române”, including their sub-units. Also the graduate can apply in the institutional structures oriented towards the management of crisis situations caused by natural hazards – General Inspectorate for Emergencies Situations and the counties inspectorates involved. We can mention the institution specialized in monitoring the quality of natural environment’ components, such as National Agency for Environmental Protection and their territorial units (regional and county level). The graduate may apply in the field of research institutions which are working mostly with funds obtained from project studies focused in solving various topics from Physical Geography.</p>

Date: 28 oct. 2010

Signature:

Prof. PhD Pandi Gavril

Lecturer PhD Bătinaş Răzvan