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					C	S / L / P		
TOURISM AND REGIONAL DEVELOPMENT	***MASTER***	IGGTDR101	*Global Economy and Regional Development*	1 / 1	2	2	8	The course is intended to analyze and present the general features of the world economy, the theoretical aspects referring to the macro-economic situation at the world level. It also presents the theories and doctrines of economic development. The most important aspects dealt with in the course are: globalization – method of approach and solving the major contemporary problems; the future of the alternative energies and the impact of their use upon the environment in the context of the sustainable economic development; economy and environment – harmonization premises in the context of the sustainable economy; economic development and the environment; the relationship economic development – environment at the European level; the principles of the regional development policies; instruments of the regional policy used inside the European Union; regional policies in the European Union etc.
		IGGTDR102	*International Tourism - Regional Differences*	1 / 1	2	2	8	The course mixes theoretical approaches to practical ones with a view to develop the international tourism business, in orientation in the real world of tourism, in the economy of this type of business both at the regional and at the world level. The theoretical component, based on real factors of the international tourism development is meant to ensure awareness of the essence of this social phenomenon. It is important to approach scientifically the geographic organization of the international tourism, the social and economic processes within this phenomenon. In this way tourism practices can be analyzed and the principles of the sustainable development and rational use can be emphasized, leading to an insight of state policies in tourism development.
		IGGTDR103	*GIS for Assessment of the Tourism Phenomenon*	1 / 1	2	2	7	The course focuses on the statistical interpretation and GIS analysis of the data regarding touristic activities. Includes lectures on the location theory, role of GIS in promotion and development of tourism, tourism planning, as well as use of GIS software in the elaboration of touristic maps and tourist fluxes analysis. During the labs the students will experiment the use of the ArcGIS and MS Excel packages in the tourism phenomenon analysis, based on several case studies.
		IGGTDR108	*Mediterranean Tourism - Specificity and Actuality*	1 / 1	2	2	7	The aim of the course is the presentation to the students of the fundamental concepts and of the geographic typologies of tourism by relating them to the features of the Mediterranean tourism. A special attention is paid to the characteristics of the Mediterranean basin as first tourist destination in the world that attracts 30& of the foreign tourists annually and to the factors of tourist attraction that contributed to the individualization of the most important tourist tide in the world, which involves about 200 million international tourists annually, concentrated in the summer season. The course analyzes

								both the main Mediterranean tourist concentrations and the impact of the tourist pressure on the landscape taking into consideration the growth of the tourist tide towards this destination that combines perfectly the sand, the sun and the sea, and possesses a unique anthropic patrimony.
		IGGTDR104	*Ethnogeography and Tourism*	2 / 1	2	2	5	
		IGGTDR105	*Tourism in Bukovina in the European Context*	2 / 1	2	2	7	The course highlights the tourist potential in Bukovina, region entered into the internal and international tourist circuit and which undergoes a process of qualitative improvement through the preoccupation to render valuable at a higher and higher level its rich resources. The course places emphasis on the elements that create the Bukovinian tourist product, made up of the following categories of factors: tourist patrimony, with the natural factors (geographic setting, climate, landscape, scenery etc), the human factor (hospitality, customs and traditions, folklore, history, art, culture, etc), the general infrastructure of the area, including the general economic development (industry, agriculture, trade, transport), the demographic development (population and settlements), the general urbanistic structure, the tourist infrastructure, the background regarding the preparation and further training of the employees in tourism, the legislative background dealing directly or indirectly with tourism.
		IGGTDR106	*Tourist Management of the Cultural Potential*	2 / 1	2	2	6	The course presents specific features of cultural tourism. Definition of key concepts, such as culture, heritage, and cultural tourism is the theme of the first chapter. There are also detailed human tourism resources which are exploited through cultural tourism. The relationship between UNESCO and cultural tourism is another topic of discussion. The influence of globalization on cultural tourism is an important aspect of contemporary society and is therefore addressed in this course. Policies on cultural tourism in various European countries are presented in the second part of the course. The cultural tourism policy in the European Union is analyzed in a detailed manner.
		IGGTDR107	*Case Study for Analysis of Tourism Phenomenon*	2 / 1	0	2	5	
		IGGTDR109	*Balneoclimatology Potential of Romanian Resorts*	2 / 1	2	2	7	The Romanian territory is bioclimatically divided, and bioclimates (exciting-tiring in the plains and at the seaside, sedative-indifferent in the hilly area and tonic-stimulant in the mountainous area) are analyzed with a view to using their potential in various balneoclimatic resorts. The whole approach is based on numerous examples (of which the most representatives are treated as case studies) in which certain properties of the environmental factors (air, water, mud etc.) are used prophylactically and therapeutically in balneoclimatic locations.
		IGGTDR201	*Landscape Tourist Potential*	1 / 2	2	2	6	The course presents the main elements of relief coming in support of tourism. Therefore not accidentally the relief was called the support of tourism activities. In the first part are presented the landform items to influence tourism development. These are given by the spatial

								disposal of geographical units: mountain and extra-mountain.
		IGGTDR205	*Protected Areas in Romania and their Touristic Use*	1 / 2	2	2	7	The course presents an overview of protected areas types and the history of biodiversity conservation activity in Romania. It will examine the relationships between species and their habitats and between protected areas and surroundings, the human impact of the geodiversity and the potential land use conflicts. Also, the course provides the touristic use of the Romanian protected areas and the impact of that use on the protected areas.
		IGGTDR206	*Touristic Region Analysis. Case Study: Tourism in Region Chamonix-Mont Blanc*	1 / 2	2	2	7	
		IGGTDR207	*Analysis of Tourism Phenomena in Dissertation Preparation*	1 / 2	0	3	4	
		IGGTDR208	*Scientific, Cultural and Tourism Valorisation of Heritage*	2 / 2	2	2	6	The course intends to describe how the modern society can valorize the cultural heritage, from scientific, cultural and touristic point of view. In order to do so, the information is organized following the main patrimonial categories: material heritage, immaterial heritage and cultural landscapes. As a result, we refer to buildings: civil, military, religious, public, industrial, collections: archaeological, historical, technical, urban and rural landscapes.
		IGGTDR202	*Project Management in Tourism*	2 / 2	1	2	7	
		IGGTDR203	*Tourist Facilities*	2 / 2	2	2	7	The Lecture of *Tourist Territorial Planning* completes the training in tourism in specialization of Geography of Tourism by studying specific issues in spatial planning of different type and categories of tourism and geographical space. The lecture is structured on presents the concepts of tourism territorial planning and the evolution of this concept on territory, being completed in 2nd Part by identifies, optimal and failures on territorial planning in geographic areas defined as Tourist dominant space: white, green, blue, countryside, culture, area protected etc. Identifying and modeling methodology tourist facilities/ planning in the different areas of this process conclude with directions provided by national strategy for tourism development. It also presents concepts and tourist strategies for territorial tourist planning and development of the mountain area in Romania, compared to the experience of other EU countries.
		IGGTDR204	*Tourist Marketing*	2 / 2	1	2	6	Tourism marketing as a specific area of marketing, aims to study carefully the travel needs of local and foreign potential customers (tourists) to identify opportunities to meet them in better conditions than does the competition, ensuring a profit (some, normal or maximum). Because of this, the specialist in tourism marketing must focus his attention and action in two basic directions: towards customers and towards competitors. Any neglect of either of these two targets can irreparably jeopardize the company's market position. The course contains information about the content of services and tourism products, their quality characteristics, particularities posed compared to other goods, their life cycle, the tourism market, the demand for tourism, distribution and promotion of tourism.
		IGGTDR207	*Analysis of Tourism Phenomena in*	2 / 2	0	3	4	

			Dissertation Preparation 2					
		IGGTDR209	*Regional Differences in Romanian Tourism*	1 / 2	2	2	6	The course highlights the variety of the huge tourist potential of the rural area represented by important and varied cultural-historical values – popular art, ethnography folklore, traditions, historical vestiges, a harmonious varied and picturesque landscape, preserved customs and old traditions, a rich and varied folklore, original elements of ethnography and workmanship. The Romanian rural tourism may be a viable development alternative through rendering valuable the specificity and uniqueness of the rural area by diversifying the tourist offer from the simple accommodation offer to the display of the popular traditional dishes, of the pleasure and animation possibilities specific to the rural areas, transportation by traditional means, pilgrimage to consecrated religious places, visits to workshops etc

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GIS AND TERRITORIAL PLANNING	***MASTER***	IGGGIS101	*GIS - Methods and Techniques for Spatial Analysis*	1 / 1	1	2	8	
		IGGGIS102	*Territorial Planning Systems*	1 / 1	1	2	7	The academic lecture **The Planning of Territorial Systems** brings together complex content and skills of applied information theory which seeks integrated approach to planning concepts, of the territorial system. The act of Territorial Planning is approached in terms of its appropriateness in a certain territorial system, in the need for relevant socio-economic substantiations by proposed approach and the risks of inconsistency in planning decision. Bridging the complex geographic data support the presentation territorial planning instruments, the choice and use of selective skills generated by the interdisciplinary approach, concludes with identifying the optimal territorial planning -through coherent planning for different functional categories of territorial systems: industrial cultural, urban, rural, tourism, protected areas, etc. of frise (brownfiled). Also, our lecture approaches a comparative analysis of different territorial planning in Europe, also the importance of planning instruments used in EU and Romania.
		IGGGIS103	*Analysis Methods of Experimental Data*	1 / 1	1	2	7	This course is built on the book of Quantitative Analysis in Geography (author M. Rădoane et al., 1995) and is an introduction to the principal methods and techniques needed to understand the statistical methods. The first chapter of the course explains problems of the nature of geographical data and the sampling techniques. Then, notions of statistical description of data, geographical data in the context of normal distribution, statistical models in geography, problems of time series and space series analysis. Statistics are important tools for validating theory, making predictions and engaging in policy research.

		IGGGIS104	*Geodetic and Cadastral Systems in GIS*	1 / 1	1	2	8	The use of GIS in the field of cadastre system meant an important step in inventorying and monitoring of areas within the territory of a country, and finally to the entire globe. These database systems add further information to the data base at the country level excluding the possibility of properties superposition, which is the case of totalitarian regimes. The use of GIS systems is also useful for determining the strategies of development of different areas of a country's territory, as they are set out very clear categories of use thereof.
		IGGGIS105	*GIS Applied to Urban Analysis*	2 / 1	1	2	7	The course presents some aspects of spatial analysis applied to the urban space. The first part of the course covers the types of spatial analysis techniques that allow GIS: spatial autocorrelation, interpolation space, spatial regression and spatial interaction (gravity models). The course discusses the types of GIS applications that can be addressed in the urban space through spatial analysis: spatial location, spatial distribution, spatial form and spatial relationship. Spatial analysis concepts and notions of urban planning are also addressed. Through case studies are discussed advantages and possibilities posed by GIS applications in the study of urban dynamics.
		IGGGIS106	*GIS Applied to Rural Analysis*	2 / 1	1	2	7	This course is an introduction in the acquisition, analysis and presentation of geospatial information regarding features specific to rural environments. Lectures include discussions on the concept of rural development and indicators of growth, the use of remote sensing and GIS technologies and techniques for rural development, for socio-economic information analysis, micro-planning and rural management. The labs provide an opportunity for the students to use geospatial data and software tools (such as ArcGIS with Spatial Analyst, Geostatistical Analyst, MS Office) for thematic mapping, multi-criteria analysis etc. of rural spaces.
		IGGGIS107	*GIS Applied to Transportation Analysis and Evaluation of Tourism Phenomenon*	2 / 1	1	2	8	The course focuses on GIS-based analysis of the transportation networks and touristic activities data. Includes lectures on the applicable GIS functions, principles of location analysis, trade and service areas, suitability analysis, point, line and polygon-based location analysis, role of GIS techniques in the elaboration of thematic maps. Practical aspects of these features will be approached during the labs, using ArcGIS platform and software extensions such as Network Analyst and Spatial Analyst.
		IGGGIS108	*Quantification of Hazards and Climatic Risks*	2 / 1	1	2	8	The course begins with an analysis of the theoretical and methodological basis regarding risks of weather-climate nature and their broad classification. In the next stage there are analyzed the generating and stimulating factors of the weather-climate risk phenomena: atmospheric circulation, regional and local geographical factors, cosmic and terrestrial factors that affect the radioactive-caloric balance and not least the anthropogenic factors, that through their actions can generate risk from a local scale (episodes of major pollution) to a global scale (climate warming). Focus is then placed on risk phenomena of thermal, pluviometrical,

								dynamic and associated nature, with cause explanation, event description, evaluation of consequences and finding optimal solutions for their management. Every dangerous weather-climate phenomena is passed through a laborious qualitative-quantitative analysis, supported by representative case studies.
		IGGGIS201	*GIS and Land Stability Analysis (Applied Geomorphology)*	1 / 2	1	2	8	The course shows GIS applications for several topics of land stability: natural slopes and their shape of equilibrium, gully erosion modeling, river bank stability, landslides and their modeling using GIS techniques. The most important part of the course topics are practical applications with subjects of our findings tradition.
		IGGGIS204	*GIS Projects of Regional and Local Development*	1 / 2	0	3	7	The academic lecture Geographical Informational System and the Dynamics of Geographic Landscape has a complex content and structure, by a dual approach: on the one hand one conceptual typology about geographical landscapes and other, the GIS methods to identify first the current dynamics of geographical landscapes. The lecture provides skills training mechanisms applied by understanding and analyzing geographic diversity of landscapes. Structural analysis and functional, geographical landscapes (natural, cultural, multiple Genesis, etc.) are subject to complex dynamics generated mostly by natural and technogenic features and acts. Knowing the fundamental criteria of physics and economic geographical dynamics of geographical landscapes, involving critique and improvement tools on their dynamics, for diagnosis and prognosis evolutionary relevance. Also is presented the dynamicity of landscapes and their effects on different terms (long, medium, short), and the arrangements for monitoring the dynamics of landscapes in protected areas, in fragile mountain context and types of landscapes.
		IGGGIS205	*GIS Applied to Forest Land and Protected Areas*	1 / 2	1	2	8	The course presents specific knowledge about forestry and protected areas required for GIS applications. The forestry knowledge includes information about trees, stands and forests, which are found as descriptors in the forest management plans. The conceptual framework of protected area is presented on the world, European and national level, as well as the major organizations and institutions involved in nature preservation. Practical applications deal with GIS projects regarding the forest and natural reserve management plans.
		IGGGIS206	*GIS and Dynamics of Geographical Landscapes*	1 / 2	1	2	7	The course is structured in the creation of practical skills and GIS spatial analyzes geographic selection interdisciplinary involved in regional or local development. Correlation of geographical support of presenting complex with specific GIS methods and tools is presented as the optimal way of action through planning coherent systems applied for different territories / regions / administrative units or functional areas, that are defined as complex, industrial, cultural, urban, rural, tourist areas or protected areas etc. Structure of the academic lecture deals, on the one hand, by identifying means and method of the regional geographic analysis, correlated with those conferred by national and European development strategies at regional and local development. In this academic approach there are examples of national, regional and local Projects and development

								strategies in the Perspective of EU 2014-2012 development strategy others instruments as Local/national Master Plans .
		IGGGIS202	*GIS Applied to Evaluation of Land and Soil Analysis*	2 / 2	1	2	7	This course strongly uses the tools of GIS and Remote Sensing for the land use and land cover spatial analyses and for the soil properties description. Field trips help to develop student competency in land use analysis, land cover description and assessment of human impact on soil quality.
		IGGGIS203	*Dissertation Preparation*	2 / 2			8	This subject presents to the future specialists in GIS and territorial planning, in the minutest details the rigors and the algorithm of realizing a geographic study equal to the dissertation paper, beginning with how to choose the title and finishing with how to write the conclusions. Special emphasis is placed on the preparation methodology of the study, the chosen methods, the work plan, the database used, the quality of the text, the statistical, graphic and cartographic material used of GIS programmes, on quotes, on the bibliography used in writing issues etc.
		IGGGIS207	*GIS Applied to Hydrology and Water Resources Management*	2 / 2	1	2	7	*GIS introduction* (Spatial information in hydrology and water management, data models, data structures, coordinate systems types of projects, spatial data analysis, brief presentation of GIS software and additional products). *Hydrological models and GIS. Interpolation of hydrological variables. Digital elevation models (DEM) and their appliance. Using of GIS techniques for patterning of surface flow* (with special view on flooding). *Using of GIS technologies for patterning underground waters. The importance of GIS techniques on water analysis data and decisional measures regarding management. Tracing dividing ranges, rivers and lakes. Projection types. GIS databases. Creation of a data base for a basin map in Suceava region which contains basic geographical information and the basin flow. Map analysis and projection. Georeference. Work methods with Raster data. Raster II and GIS applications in hydrology. Simple hydrological models. Complex hydrological models.*
		IGGGIS208	*GIS Applied to Mineral Resources Management and Rehabilitation of Mining Zones*	2 / 2	1	2	8	The need for mineral resources has inevitably led to the accumulation of waste and as a result of mining activities. This, linked to non-compliance with legislation on the use of these areas has led to the emergence of areas with adverse impact on the environment. GIS systems are particularly useful in mapping and monitoring of areas whose activity was terminated. The use of specific sensors in many collecting points leads to a database which can be analyzed more easily and that constitutes the starting point for determining the greening plans of such areas.

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GEOGRAPHY	***Undergraduate***	IG G1 101	*General Geography*	1 / 1	2	2	6	Le cours de ***Géographie générale*** est une introduction à l'étude des

								disciplines géographiques et se propose d'assurer une base informative afin de rendre plus accessible la compréhension des faits et des phénomènes géographiques. Le cours est composé de six chapitres: *La Géographie comme science*, *Les bases méthodologiques de la Géographie*, *Les étapes du développement de la Géographie*, *La Terre dans l'Univers*, *Les Géosphères terrestres*, *Les milieux naturels terrestres*.
		IG G1 102	*Meteorology and Climatology*	1 / 1	2	2	6	The course presents an analysis of the terrestrial atmosphere as a cover of the Earth and its climate features transposition both at a zonal and regional level The first part of the course analyzes the origin, composition, structure, energy sources and how energy is received and used by the Earth system - atmosphere and the factors that require evolution in time and spatial distribution of the main meteorological elements: soil temperature, water, air, atmospheric pressure and wind, atmospheric humidity and rainfall. A special place is held by the synoptic meteorology, where references are made to air masses, weather fronts, main baric formations in the atmosphere (cyclones and anticyclones) and weather-generated states. In the second part of the course – the one dealing with the climate - presents the climatic-genetic factors, the spatial distribution of the basic climatic complex (temperature-precipitations), areas and types of climate around the globe with their specificity. The statistic, graphic and cartographic materials sustain the text. The case studies are selected from the most representative weather and climate situations.
		IG G1 103	*Cartography, Topography and Photogrammetry*	1 / 1	2	2	6	The aim of the course is to give the first information for those interested in geography of general knowledge of Cartography and some elements of Topography. There will be aspects of evolution of the historical point of view of the two disciplines, especially on the evolution of maps, projections used, methods and instruments used in measurements. Working with topographic map, highlighting geographical elements, their importance for linking with statistical data constitute the basis for the understanding and the deepening of geographic specific disciplines.
		IG G1 1-206	*Modern Language - English*	1 / 1	1	1	3	The General English course focuses on accuracy and fluency and it aims at developing the four language skills—listening, speaking, reading, and writing. The course also focuses on improving pronunciation and increasing vocabulary. The four semesters of English are designed to cover the levels: Elementary, Pre-Intermediate, Intermediate, Upper Intermediate.
		IG G1 1-206	*Modern Language - French*					This course aims to help master's degree students acquire a basic level of French (written and oral expression) as well as some basic knowledge of French culture and civilization so as to respond appropriately in professional or personal communication in French. Students will learn how to use elements of elementary grammar

								such as: tenses, nouns, adjectives and pronouns. The main topics addressed in the course cover the geography of France (settlement, relief, climate, etc.), the main French regions and cities, the most visited touristic sites, main customs and traditions, etc.
		IG G1 110	*Geography Resources*	1 / 1	2	2	4	Excepting the solar energy, the only extraterrestrial energetic resource, all the others resources originates from geospheres. For this reason this course presents the sum of natural resources of Earth considered component parts of geospheres. Thereby, we presented atmosphere resources (raw materials + energetic resources), hydrosphere resources (water considered fundamental resource for life, hydrosphere-raw material, water-hydro-energetic resource), lithosphere resources (energetic resources, raw materials, soil resources), biosphere resources (vegetal resources and fauna resources).
		IG G1 112	*General Geology*	1 / 1	2	2	5	The course opens with a general look on the age, chemical composition and structure of the Univers and on the Solar System. After this short introduction, the students will study the structure and composition of the Earth's interior (crust, mantle and core), the different physical properties of the Earth and the various morphotectonic divisions of the Earth's crust, the global tectonic theory (continental drift, seafloor speading and plates). Plate moves as individual units and interactions between plate occur along their edges. Plate interactions are most distinctively expressed by earthquakes and volcanism. The plate margins are the large zones known for the complex igneous and metamorphic processes generating the intrusive and extrusive igneous rocks, pyroclastic rocks. The surface of the Earth'crust is the place where occur various depositional environments characterized by different kinds of sediments and sedimentary rocks.
		IG G1 104	*Hidrology and Oceanography*	2 / 1	2	2	6	Resources of water on Earth. Global Problems. Underground water (hydrogeology). Hidrology of rivers (potamology). Lymnology. Glaciology. Hidrology of swamps (telmatology). Pollution and management of water resources. Oceanography.
		IG G1 105	*Geography of Population*	2 / 1	2	2	4	The course is divided into 6 chapters and aims to familiarize students with issues related to the dynamics and characteristics of world population. The elements of the natural movement of population, territorial mobility of the population are the issues addressed in this course. As a result of the natural movement and migration, population distribution on Earth is approached from the perspective of the determinants and consequences. The last part of the course, Earth's population is analyzed qualitatively, focusing on identifying regional differences and regional assemblies results. The course ends with a chapter on the impact of population on the environment.
		IG G1 1-206	*Modern Language – English 2*	2 / 1	1	1	3	The General English course focuses on accuracy and fluency and it aims at developing the four language skills—listening, speaking, reading, and writing. The course also focuses on improving pronunciation and increasing vocabulary. The four semesters of

								English are designed to cover the levels: Elementary, Pre-Intermediate, Intermediate, Upper Intermediate.
		IG G1 1-206	*Modern Language - French 2*					This course aims to help master's degree students deepen their general knowledge of French (written and oral expression) as well as their knowledge of francophone culture and civilization so as to respond appropriately in professional or personal communication in French. The main topics addressed in the course cover different aspects (geographical, cultural, political, etc.) of France and other countries from the European Francophone space (Belgium, Switzerland, Luxembourg), the American continent (Quebec), or Africa (Cameroon, Morocco, etc.).
		IG G1 108	*Geomorphology*	2/ 1	2	2	6	Geomorphology course overall was published in 2002. He was drafted during a period of over 6 years of evaluation of the latest global trends in knowledge of the relief. The concept behind the course was: the study of the landforms is the most important part of physical geography at the same time we can consider as the basis of physical geography (De Martonne, 1926). Geomorphology position throughout the natural sciences has been assessed against the following milestones: *first*, that its object of study is the morphology of the land surface or other planets, as an interface between the solid part (lithosphere) and the fluid (the atmosphere and hydrosphere) of the Earth; *secondly*, given the feedback relations between the two areas and their correspondence to the level of the science.From here two approaches of the landforms were release: first, geological geomorphology or the knowledge of the role the structure and lithological composition in defining of the relief; and secondly, the morphosculpture or the knowledge of the large systems of landforms modelling. In the final part we have been highlighting the role of anthropogenic effects on of the relief dynamics.
		IG G1 109	*Geography of Tourism*	2 / 1	2	2	6	The course is an analysis of the general features of the geography of tourism, and it examines the concepts and definitions used in this field, presenting theoretical aspects related to economic development theories and doctrines. It also examines the placement and te organization of the natural and anthropic tourism potential at the world level. It identifies the reciprocal relationships between the components and the elements of the tourism potential and the level of tourism development. It explains and interprets the relationships between the tourism potential and the direction of the main tourism tides, the statistical data referring to the level of the tourism development in the world, to different forms and types of tourism.
		IG G1 111	*General Economic Geography*	2 / 1	2	2	5	The course intends to present the general features of the world economic geography and to make known the political and economic world map by identifying the geo-economic types of countries according to the level of economic development. IG G1 101It contains theoretical aspects of the economic geography of the wor IG G1 101ld related to the theories and doctrines of the economic developmen IG G1 101t. It identifies the reciprocal relationships between the components and the elements of the world

								economy from the geographic viewpoint. The relationships among the natural, economic, historical and social factors in the geographic development and distribution of the world economy branches are explained and interpreted. Also, the connections among natural resources, economic evolution, the level of economic development and the geo-economic country types within the world economy are presented.
		IG G2301	*Geography of Soils*	1 / 2	2	2	6	This course starts with a short presentation of soil science and history of soil science development, followed by the detailed description of soil genesis and evolution (factors and processes), material constitution and soil properties. A special part presents soils of the world: classifications, genesis, properties and geographical distribution. Laboratory tests and field trips develop student competency in soil description, analysis, and assessment of human impact on soil quality.
		IG G2302	*Geography of Europe*	1 / 2	2	2	6	In World Regional Geography lecture , the Geography of Europe proposes a systemic approach to continental assembly, existing regional structures and their dynamics. In the teaching course, the concepts which are being deciphered are the geographic region, regionalization and territorial differences exhibited in the European context in a manner that integrates geosystem elements in the continental assembly, understanding of the role of territorial differentiation of geographical landscapes, natural or cultural dominance in interacting with their socio-economic level of the whole continental, regional and state.
		IG G2303	*Geographical Toponymy*	1 / 2	1	1	4	***The course intends to clarify the geographic names in a scientific, methodic and systematic way. The very name of the course points out the fact that place names belong primarily to geography because they designate geographic elements (landforms, water names, vegetal associations, human settlements, ways of communication) and their approach must me done from a geographic perspective. The main scientific value of toponymy consists in the fact that it preserves data referring to historical facts that are no longer perceived by ordinary people. A special emphasis is placed on the meaning of the toponyms at the scientific level, on the educational role played by toponymy, by ideology and even by some religious beliefs that influenced the world toponymy, but also on the deliberate change of toponyms, especially in the colonial areas.***
		IG G2304	*Geology of Romania*	1 / 2	2	2	6	The Geology of Romania, aims to give the students knowledge referring to the geological structure of the Romania territory. This is necessary because the knowledge of geological structure, will make more easily understood the general geomorphologic aspects, because the Carpathian Orogenic system, represents the most important element in the Alpine cycle. The Romanian territory is made up of several geostructural units which differ by certain particularities of their geological

								construction. We believe that through the accumulation of knowledge students will much easier understand the geological phenomena that occurred at the country scale, and also the connections between the geological structure of the Romanian territory and the European or global one.
		IG G2305	*Biogeography*	1 / 2	2	2	5	This course describes the spatial patterns of the species distributions on Earth and tries to explain the complex causes of these patterns. The fundamental biogeographic processes, the influence of the ecological factors and their effects are detailed presented. Conservation biogeography is also approaches. The tools of GIS and Remote Sensing are use for the biogeographic spatial analyses.
		IG G23-406	*Modern Language - English*	1 / 2	0	2	3	The General English course focuses on accuracy and fluency and it aims at developing the four language skills—listening, speaking, reading, and writing. The course also focuses on improving pronunciation and increasing vocabulary. The four semesters of English are designed to cover the levels: Elementary, Pre-Intermediate, Intermediate, Upper Intermediate.
		IG G23-406	*Modern Language - French*					This course aims to help master's degree students deepen their general knowledge of French (written and oral expression) as well as their knowledge of francophone culture and civilization so as to respond appropriately in professional or personal communication in French. The main topics addressed in the course cover different aspects (geographical, cultural, political, etc.) of France and other countries from the European Francophone space (Belgium, Switzerland, Luxembourg), the American continent (Quebec), or Africa (Cameroon, Morocco, etc.).
		IG G2408	*Physical Geography of Romania*	2 / 2	2	2	5	This course focuses on the main physical geographical aspects of the Romania's territory. In the first part geographical location in Europe, area, boundaries and neighbors Romania are presented. Also, the importance to the three key elements that characterize Romania is argued, namely: Carpathian Mountains, the Danube and the Black Sea. Further, the natural frame elements are given: landforms and their palaevolution, genetical types, climate, waters, vegetation, fauna and, soils. In the final part of the course is presented a physico-geographical regionalization of the Romania's area.
		IG G23-406	*Modern Language – English 2*	2 / 2	0	2	3	The General English course focuses on accuracy and fluency and it aims at developing the four language skills—listening, speaking, reading, and writing. The course also focuses on improving pronunciation and increasing vocabulary. The four semesters of English are designed to cover the levels: Elementary, Pre-Intermediate, Intermediate, Upper Intermediate.
		IG G23-406	*Modern Language - French 2*					This course aims to help master's degree students deepen their general knowledge of French (written and oral expression) as well as their knowledge of francophone culture and civilization so as to respond appropriately in professional or personal communication in French. The main topics addressed in the course cover different

								aspects (geographical, cultural, political, etc.) of France and other countries from the European Francophone space (Belgium, Switzerland, Luxembourg), the American continent (Quebec), or Africa (Cameroon, Morocco, etc.).
		IG G1 2407	*Urban and Rural Geography*	2 / 2	2	2	5	The course is divided into 8 chapters and presents the main features of urban and rural settlements all over the world. The first part of the course is devoted to urban geography. Urban settlements are analyzed in terms of their evolution by identifying specific characteristics for cities which occurred in the same historical period. In another chapter the course presents aspects of territorial development of urban settlements and the reflection of these developments in urban morphology. Urban functions and classification of cities are presented in another chapter. Rural settlements are primarily presented in relation to the natural features that they were and are closely related. Secondly, it presents the classification of the rural settlements.
		IG G2409	*Practical Training - Geography*	2 / 2	2	2	3	
		IG G2410	*Geographic Region Distribution*	2 / 2	2	2	5	Geographical regionalization responds a need in training students in Geography, in an approach based on research directions and a specific metodology, underlining the role of knowledge of differentiation and territorial cuttings, by various criteria.. The course is structured integrative, from a specific concepts of spatial-temporal analysis of regional geography, with those of practical scientific approach to regionalization, the cutout territory / territorial division, the geographical region as that functional territorial system . Criteria are presented of regionalization as division of whole part (land, continental, national etc) and functional delimitation of geographical regions, the functional typology and types of regions of related entities on geographical regionalization (mental spaces, territorial polarization structures, functional regions, etc.), showing also the evolution of the concept of regionalization policy expressed in the administrative national territory nowadays tendency .
		IG G2411	*Protected Areas*	2 / 2	1	2	4	The course presents an overview of protected areas types, the necessity of biodiversity conservation activity and examines relationships between species and their habitats and between protected areas and surroundings. Also, the course provides another geodiversity elements that are include in protected worldwide network.
		IG G2412	*Remote Sensing, GIS and Digital Cartography*	2 / 2	1	2	5	Geographical Information Systems (GIS) belong to the most widespread class of computer systems, where report making it made given the location, spatial and geographical location. This technology has the advantage of access to large volumes of data, the ability to create links between different data sets and to analyze the links between them. In the end the result will represent a synthesis of data from the time of their introduction. Photogrammetry and remote sensing, as well as all disciplines

								relating to land measurements, have known in this end-of-century essential transformations, both in terms of measuring equipment, processing technologies, measurements, but also in terms of final product required by the user.
		IG G3501	*Geography of the Environment*	1 / 3	2	2	6	The environment and environmental geography: the subject, the connection between environmental geography and other subjects. General notions of systematics. Defining the geosystem, describing the components, characteristics, and taxonomic scheme of geosystems. Connections between the geosystem components – Specific connections between abiotic components of the environment. Specific connections of biotic components with abiotic system components of the environment Description of anthropic factors that intervene in natural components of the environment (overpopulation of the planet, urbanization ,industry agriculture, infrastructure, tourism, etc.) Natural and anthtropic disturbances of the environment: disturbances of the landscape and of the pedosphere. Soil pollution through athropic activities and the influence of pollutors within the soil on components of the geosystem, waste management methods, principles and strategies used in waste management. Human intervention in marine and continental waters, on the planetary ocean. Water quality modification through pollution and hydrological factors that influence the self-purification of water. Human intervention in biotic components of the environment and creation of protected areas. Deterioration of atmospheric quality through pollution and the effects of some pollutors at a local and global level. Self-purification of air and factors that influence emission, transport, dispersion or stagnation of atmospheric noxa. Disturbances of the geosystem by overexploitation of resources. Resource Conservation. Definition, history and objective of sustainable development. Environmental Policies of the European Union and of Romania regarding environment protection. EU directives on environmental protection translated at a national level. International Conventions concerning the environment Romania adhered to. Presentation of the Organization of the integrated monitoring network of environmental factors in Romania. Implementation of Gaussian patterning utilized in calculating the noxa dispersion in the atmosphere. (Taking into consideration the characteristics of the emission sources,. meteorological factors, etc.) representation of the pollution level as isoconcentrations in different geographical areas and validation of the results by measurements. Implementation of a Gaussian-pattern utilized for calculating the self-purification of running waters through dilution (taking into consideration the characteristics and chemical composition of the effluent, characteristics of emissaries and their hydrological parameters) and validation of results through measurements.
		IG G3502	*World Regional Geography. Regional Differences*	1 / 3	2	2	6	The course is structured in the nowadays configuration of worlds and continental regions, intra-and inter-continental (as part of a coomon World : e.g. North Atlantic, North African, Sub-Saharan

								Africa, the Arab World, World monsoon. World Far East Asia, World Latino Americans. A.. World regional geography approach is based on understanding the mechanisms of production and geographic diversity analysis by identifying the fundamental criteria of geographical regionalization complex world, understanding the dynamics of macro-regional differentiation. Modern algorithm-regional geographical analysis- on criteria of regional aggregates and spatio-temporal differentiation from our issues, is centered on knowledge of both the natural and socio-economic assessment an topics. Deciphering the mechanisms of geographical structuring and functionality on certain specific area was identified based on analysis of regional differentiation and is subsumed their role and their place in the our era of globalization and world new features
		IG G3503	*Human Geography of Romania*	1 / 3	2	2	6	The course assumes the students' awareness of the place the Romanian landscape played in the formation process of the Romanian people, of the significance of the geographic and geopolitical position of the Romanian territory within the European context. The analysis of the numerous aspects concerning the population (space distribution, structure, internal and international migration, etc) is done both from a geographic and a statistical perspective and also from the perspective of the close connections among geography, sociology, demography, economy and other social sciences. The issues regarding the specific of the human settlements and of the human activities, the urbanization, development and underdevelopment, as well as those regarding the peculiarities of the Romanian economy are approached in strict connection to the important changes caused by the market economy.
		IG G3504	*Applied Geomorphology*	1 / 3	1	1	4	Applied geomorphology, as a branch of general geomorphology, is defined so: an application of geomorphological knowledge to solve problems concerning land use, resource exploitation, and planning and environmental planning. In this context, like other sciences, it assumes that the moral status as "every science must bring economic benefits, social and cultural rights to human." Thus, the course gives the answer, punctually to questions like how and by what means the geomorphology participates in solving and long-term prognosis of land management reliability. Using the most of own research results, and those obtained by several other research teams, we want to show the great potential that has applied geomorphology as a science.
		IG G3505	*Quaternary Geography*	1 / 3	2	1	4	This course refers to the large global changes produced in the last 1.6 -1.8 millions years of the Earth's existence. The global changes were induced by causes with radical implications on the relief, flora, fauna and human evolution. The framework for understanding environmental change is illustrated by the first chapter about the chronology of Quaternary and the main events: glaciations, sea-level changes, mammal fauna succession. The most important events took place in Pleistocen and generated the climate, shape

								crust and sea-level changes.
		IG G3513	*Natural and Anthropic Hazard Geography*	1 / 3	1	1	4	Natural and anthropogenic hazards (droughts, floods, blizzards, or nuclear accidents, industrial accidents, military and social conflicts etc.) have a direct or indirect influence on each of the humans. Following the increasing damage by hazards and loss of human lives in the last decades was created an extensive research program entitled 'International Decade for reducing the effects of Natural Disaster ". This course aims to acquire practical skills for investigating hazards from causes to effects of abilities necessary corrective measures of protection and the formation of adequate attitude to minimize the risks and for solving problems in situations of disaster and catastrophe. ***Specific competences:*** • new terminology used in different contexts; • the use of investigative procedures; • analyzing the observed relationships between hazard and IG G1 101society; • analyze natural hazards and man; • analyzing major changes at planetary level; • cartographic localization of areas with high frequency of hazards; • description of coherent phenomena and processes observed directly and indirectly; • to identify ways of preventing and mitigating risk phenomena; • summarizing the main issues that belong to hazard; • analyzing the disastrous effects produced by hazards; • interpreting the information in the media.
		IG G3606	*Water Management*	2 / 3	2	2	4	*Water – source of life* **(**The role of water in the life of ecosystems and people, Water within natural and social systems, History of thinking on water resources management). *Management of water between aim and opportunity* **(**Standards of sustainability. The evaluation of the current stare of global water resources. Major features of administration of global water resources. Major problems for the future. Promising prospects for nowadays and future problems through and improved administration of water resources). K*nowledge on modification of ecosystems* **(**Fast innovation. Progressive development. Change of social values. Personal recognizing. A historical-geographical view on human recognition). *Natural waters* **(**Natural circuit of water, precipitations, evapotranspiration, water flowing, depth water, snow and ice and water quality). *Underground waters* **(**Depth water from Europe. Situation of depth water resources in Europe. Making decisions). *Lakes and humid areas* **(**Significant characteristics of the lakes. Lakes management. Management of humid areas). *The minor and major river beds* **(**Anthropogenic utilization of minor and major river beds. Major bed functions. Minor and major river bed management. Systematic arrangements of the river beds. Systematic usage of the major river bed. River restoration and ecosystem functions. Global monitoring

								of floods as hazards). *Dammed rivers and anthropogenic lakes* **(**Functions, effects and the context changing of the river embankment. Big dams effects on the environment). *Household and industrial waters administration* **(**International initiatives on household waters. Industrial water usage. Deficiencies between water infrastructure and environment administration. Water quality and environmental protection. Water sources protection (springs, wells etc.). Management of used waters back flowing). *Making decisions* **(**Engineering project. Economic evaluation. Selection variable in the making decisions process). *Integrative approach* **(**Management of dividing ranges. Global environmental management).
		IG G3607	*Topoclimatology*	2 / 3	2	2	5	The course begins with a short history of topoclimatology and microclimatology development, the subject matter, methods and means of research of these climatological branches. Then there are analyzed the topo- and microclimate generating factors, the greatest accent being placed on the ability of the active surface to generate topo-climates and micro-climates. The distribution in the topo- and microclimatic area of the main climatic elements (temperature, humidity and wind) are paid a special attention. Another highlighted issue is represented by the features of some microclimates (the microclimate of herbaceous vegetation, the microclimate of small pools of waters, the microclimate of relief microforms, the microclimate of caves) and topoclimates (forest and urban) with a special emphasis on: generating climate factors and particularities of elements/ weather and climate phenomena within them.
		IG G3608	*Applied Geography*	2 / 3	2	2	5	Geography was always applied, long before it became an identified academic discipline; much geographical knowledge was created for specific purposes. For the first half of the 20th century, the development of geography as an academic discipline was closely associated with its educational role, especially in the preparation of teachers and of teaching materials. Increasingly, however, geographers responded to societal changes—especially the extending role of the state—by promoting their discipline as a potential contributor in a range of activities. Changing objectives geographical sciences (both physical and human nature) from the predominant educational to the direct impact on the environment and society occurred while affirming "quantitative revolution" in geography (Chorley, 1967). Change occurred during the mid 20th century, with the affirming numerous contributions from geographers to solve problems arising in the changing environment and society. The course shows numerous examples of applications of geographical sciences in areas such as: mining, shoreline changes, forest management, dam construction of dams and man-made lakes, river ice jams.
		IG G3609	*Social Geography*	2 / 3	1	1	4	The main aim of the Social Geography course is the analysis of the social and the geographic relations and of the interrelations between

								them. It analyzes some social phenomena which are at the same time spatial phenomena or facts: the rural area crises, its depopulation (as a consequence of the birth rate, marriage rate and fertility decrease, of divorce rate increase and population aging, massive urbanization in the developed countries, the decrease in the standard of living in the countries marked by economic reorganization, the incapacity of many people to face the new economic conditions, the growth of the coming back migration (urban-rural) and of the international migration with all its consequences both at a macro-social and at a micro-social level.
		IG G3610	*Regional Geography of Romania*	2 / 3	2	2	5	The overall aim of the course is to introduce students to the Regional Geography of Romania with the emphasis on the natural and socio-economic complexity and diversity of each part of the country. Lectures include discussions on the principles of country regionalization, characterization of the Romanian territory in all its complexity - highlighting the links between the natural environment, humanization and economic development in the geographic regions, regional presentations of the main landscape units (geographical position, aspects regarding specific geology, landforms, climate and hydrography, biodiversity, natural resources, population and settlements, economic activities). Seminars include student oral presentations and several tests based on thematic maps of Romania.
		IG G3611	*Integrated Environmental Monitoring*	2 / 3	1	1	4	By organizing "The integrated environmental monitoring system" is obtained the information from local, regional and global environment on the evolution of the state in the implementation of measures to prevent and combat pollution. The components of air quality monitoring are: traffic stations, industrial type, the urban, suburban type, background type and background regional EMEP type. The modes establishing state water quality are: ecological status, chemical status and ecological potential. Inside the soil monitoring system of soil aquality, the 3 levels of soil quality characterization are.
		IG G3612	*Final Paper Preparation*	2 / 3	0	2	3	This subject presents to the future specialists in geography, in the minutest details the rigors and the algorithm of realizing a geographic study equal to the license paper, beginning with how to choose the title and finishing with how to write the conclusions, the paper’s bibliography and presenting it in front of a board of professor examiners. Special emphasis is placed on the preparation methodology of the study, the chosen methods, the work plan, the database used, the quality of the text, the statistical, graphic and cartographic material, on quotes, on the bibliography used in writing issues etc.

Denumirea programului de studiu (Study	**Nivelul de studio (Level)**	**Codul cursului (Class code)**	**Denumirea cursului (Subject)**	**Semestrul / anul în care se defăş oară (Semester/ Academic Year)**	**Nr. ore /săptămână (Nr. Hours/week)**	**Nr. Credite (ECTS)**	**Subiectul cursului (max. 500 caractere) (Description)**

Programme)					C	S / L / P		
GEOGRAPHY OF TOURISM	***Undergraduate***	DF0101	*General Physical and Human Geography*	1 / 1	2	2	6	Le cours de ***Géographie générale*** est une introduction à l'étude des disciplines géographiques et se propose d'assurer une base informative afin de rendre plus accessible la compréhension des faits et des phénomènes géographiques. Le cours est composé de six chapitres: *La Géographie comme science*, *Les bases méthodologiques de la Géographie*, *Les étapes du développement de la Géographie*, *La Terre dans l'Univers*, *Les Géosphères terrestres*, *Les milieux naturels terrestres*.
		DF0102	*Meteorology and Climatology*	1 / 1	2	2	6	The course presents an analysis of the terrestrial atmosphere as a cover of the Earth and its climate features transposition both at a zonal and regional level The first part of the course analyzes the origin, composition, structure, energy sources and how energy is received and used by the Earth system - atmosphere and the factors that require evolution in time and spatial distribution of the main meteorological elements: soil temperature, water, air, atmospheric pressure and wind, atmospheric humidity and rainfall. A special place is held by the synoptic meteorology, where references are made to air masses, weather fronts, main baric formations in the atmosphere (cyclones and anticyclones) and weather-generated states. In the second part of the course – the one dealing with the climate - presents the climatic-genetic factors, the spatial distribution of the basic climatic complex (temperature-precipitations), areas and types of climate around the globe with their specificity. The statistic, graphic and cartographic materials sustain the text. The case studies are selected from the most representative weather and climate situations.
		DC0113a	*Modern Language - English*	1 / 1	1	1	3	The General English course focuses on accuracy and fluency and it aims at developing the four language skills—listening, speaking, reading, and writing. The course also focuses on improving pronunciation and increasing vocabulary. The four semesters of English are designed to cover the levels: Elementary, Pre-Intermediate, Intermediate, Upper Intermediate.
		DC0113b	*Modern Language - French*					This course aims to help master's degree students deepen their general knowledge of French (written and oral expression) as well as their knowledge of francophone culture and civilization so as to respond appropriately in professional or personal communication in French. The main topics addressed in the course cover different aspects (geographical, cultural, political, etc.) of France and other countries from the European Francophone space (Belgium, Switzerland, Luxembourg), the American continent (Quebec), or Africa (Cameroon, Morocco, etc.).
		DF0103	*Cartography, Topography and Photogrammetry*	1 / 1	2	2	5	The aim of the course is to give the first information for those interested in geography of general knowledge of Cartography and some elements of Topography. There will be aspects of evolution of the historical point of view of

								the two disciplines, especially on the evolution of maps, projections used, methods and instruments used in measurements. Working with topographic map, highlighting geographical elements, their importance for linking with statistical data constitute the basis for the understanding and the deepening of geographic specific disciplines.
		DS0112b	*Geography Resources*	1 / 1	1	1	3	Excepting the solar energy, the only extraterrestrial energetic resource, all the others resources originates from geospheres. For this reason this course presents the sum of natural resources of Earth considered component parts of geospheres. Thereby, we presented atmosphere resources (raw materials + energetic resources), hydrosphere resources (water considered fundamental resource for life, hydrosphere-raw material, water-hydro-energetic resource), lithosphere resources (energetic resources, raw materials, soil resources), biosphere resources (vegetal resources and fauna resources).
		DF0104	*General Geology*	1 / 1	2	2	5	The course opens with a general look on the age, chemical composition and structure of the Univers and on the Solar System. After this short introduction, the students will study the structure and composition of the Earth's interior (crust, mantle and core), the different physical properties of the Earth and the various morphotectonic divisions of the Earth's crust, the global tectonic theory (continental drift, seafloor speading and plates). Plate moves as individual units and interactions between plate occur along their edges. Plate interactions are most distinctively expressed by earthquakes and volcanism. The plate margins are the large zones known for the complex igneous and metamorphic processes generating the intrusive and extrusive igneous rocks, pyroclastic rocks. The surface of the Earth'crust is the place where occur various depositional environments characterized by different kinds of sediments and sedimentary rocks.
		DF0206	*Geomorphology*	2 / 1	2	2	5	Geomorphology course overall was published in 2002. He was drafted during a period of over 6 years of evaluation of the latest global trends in knowledge of the relief. The concept behind the course was: the study of the landforms is the most important part of physical geography at the same time we can consider as the basis of physical geography (De Martonne, 1926). Geomorphology position throughout the natural sciences has been assessed against the following milestones: *first*, that its object of study is the morphology of the land surface or other planets, as an interface between the solid part (lithosphere) and the fluid (the atmosphere and hydrosphere) of the Earth; *secondly*, given the feedback relations between the two areas and their correspondence to the level of the science.From here two approaches of the landforms were release: first, geological geomorphology or the knowledge of the role the structure and lithological composition in defining of the relief; and secondly, the morphosculpture or the knowledge of the large systems of landforms modelling. In the final part we have been highlighting the role of anthropogenic effects on of the relief

								dynamics.
		DF0207	*Hydrology and Oceanography*	2 / 1	2	2	4	Resources of water on Earth. Global Problems. Underground water (hydrogeology). Hidrology of rivers (potamology). Lymnology. Glaciology. Hidrology of swamps (telmatology). Pollution and management of water resources. Oceanography.
		DF0208	*Geography of Population*	2 / 1	2	2	4	The course is divided into 6 chapters and aims to familiarize students with issues related to the dynamics and characteristics of world population. The elements of the natural movement of population, territorial mobility of the population are the issues addressed in this course. As a result of the natural movement and migration, population distribution on Earth is approached from the perspective of the determinants and consequences. The last part of the course, Earth's population is analyzed qualitatively, focusing on identifying regional differences and regional assemblies results. The course ends with a chapter on the impact of population on the environment.
		DF0209	*Economic Geography*	2 / 1	2	2	4	The course intends to present the general features of the world economic geography and to make known the political and economic world map by identifying the geo-economic types of countries according to the level of economic development. It contains theoretical aspects of the economic geography of the world related to the theories and doctrines of the economic development. It identifies the reciprocal relationships between the components and the elements of the world economy from the geographic viewpoint. The relationships among the natural, economic, historical and social factors in the geographic development and distribution of the world economy branches are explained and interpreted. Also, the connections among natural resources, economic evolution, the level of economic development and the geo-economic country types within the world economy are presented.
		DC0113a	*Modern Language - English, 2*	2 / 1	1	1	3	The General English course focuses on accuracy and fluency and it aims at developing the four language skills—listening, speaking, reading, and writing. The course also focuses on improving pronunciation and increasing vocabulary. The four semesters of English are designed to cover the levels: Elementary, Pre-Intermediate, Intermediate, Upper Intermediate.
		DC0113b	*Modern Language - French 2*	2 / 1	1	1	3	This course aims to help master's degree students deepen their general knowledge of French (written and oral expression) as well as their knowledge of francophone culture and civilization so as to respond appropriately in professional or personal communication in French. The main topics addressed in the course cover different aspects (geographical, cultural, political, etc.) of France and other countries from the European Francophone space (Belgium, Switzerland, Luxembourg), the American continent (Quebec), or Africa (Cameroon, Morocco, etc.).
		DF0210	*Geography of Tourism*	2 / 1	2	2	5	The course is an analysis of the general features of the geography of tourism, and it examines the concepts and definitions used in this

								field, presenting theoretical aspects related to economic development theories and doctrines. It also examines the placement and te organization of the natural and anthropic tourism potential at the world level. It identifies the reciprocal relationships between the components and the elements of the tourism potential and the level of tourism development. It explains and interprets the relationships between the tourism potential and the direction of the main tourism tides, the statistical data referring to the level of the tourism development in the world, to different forms and types of tourism.
		DF0214a	*Organization of the Geographic Area*	2 / 1	1	1	3	The course is structured in seven chapters that examine issues relating to the organization of the rural, urban, agricultural and industrial space. In the first part of the course appear presented the basic notions and concepts of the organization of geographical space. The organization of urban space is addressed by presenting theories of the internal structure of the city. Central place theory is analyzed in detail, as urban attraction theory. Different models of industry localization and various types of industrial space are also presented. The last two chapters are examples of spatial policies in the European countries and the U.S.
		GDOIII1	*Geography of Soils*	1 / 2	2	2	6	This course starts with a short presentation of soil science and history of soil science development, followed by the detailed description of soil genesis and evolution (factors and processes), material constitution and soil properties. A special part presents soils of the world: classifications, genesis, properties and geographical distribution. Laboratory tests and field trips develop student competency in soil description, analysis, and assessment of human impact on soil quality.
		GDAIII4	*Biogeography*	1 / 2	2	2	5	This course describes the spatial patterns of the species distributions on Earth and tries to explain the complex causes of these patterns. The fundamental biogeographic processes, the influence of the ecological factors and their effects are detailed presented. Conservation biogeography is also approaches. The tools of GIS and Remote Sensing are use for the biogeographic spatial analyses.
		GDAIII6	*Territorial Systems with Application in Tourism*	1 / 2	2	2	6	This academic lecture identifies the role of territorial systems (montain, coastal, green space, rural, urban - suburban, cultural, protected areas etc.) in tourism set up by understanding and reasoning development prospects through appropriate spatial-territorial planning and development. Operationalization and linking basic concepts: *system*, *territory* and *tourism* are presented throughout the lecture through critical analysis and improvement planning tools contemporary tourist areas in Romania, with the prospect of developing specific skills, relevant geographic diagnosis and prognosis in a territorial system activity centered on tourism.
		GDAIII-IV8	*Modern Language - English,*	1 / 2	0	2	3	The General English course focuses on accuracy and fluency and it aims at developing the four language skills—listening, speaking, reading, and writing. The course also focuses on improving pronunciation and increasing vocabulary. The four semesters of

								English are designed to cover the levels: Elementary, Pre-Intermediate, Intermediate, Upper Intermediate.
		GDAIII-IV8	*Modern Language - French*	1 / 2	0	2	3	This course aims to help master's degree students deepen their general knowledge of French (written and oral expression) as well as their knowledge of francophone culture and civilization so as to respond appropriately in professional or personal communication in French. The main topics addressed in the course cover different aspects (geographical, cultural, political, etc.) of France and other countries from the European Francophone space (Belgium, Switzerland, Luxembourg), the American continent (Quebec), or Africa (Cameroon, Morocco, etc.).
		GDAIII13	*Geology of Romania*	1 / 2	2	2	6	The Geology of Romania, aims to give the students knowledge referring to the geological structure of the Romania territory. This is necessary because the knowledge of geological structure, will make more easily understood the general geomorphologic aspects, because the Carpathian Orogenic system, represents the most important element in the Alpine cycle. The Romanian territory is made up of several geostructural units which differ by certain particularities of their geological construction. We believe that through the accumulation of knowledge students will much easier understand the geological phenomena that occurred at the country scale, and also the connections between the geological structure of the Romanian territory and the European or global one.
		GDAIII15	*Geographical Toponymy*	1 / 2	2	2	4	***The course intends to clarify the geographic names in a scientific, methodic and systematic way. The very name of the course points out the fact that place names belong primarily to geography because they designate geographic elements (landforms, water names, vegetal associations, human settlements, ways of communication) and their approach must me done from a geographic perspective. The main scientific value of toponymy consists in the fact that it preserves data referring to historical facts that are no longer perceived by ordinary people. A special emphasis is placed on the meaning of the toponyms at the scientific level, on the educational role played by toponymy, by ideology and even by some religious beliefs that influenced the world toponymy, but also on the deliberate change of toponyms, especially in the colonial areas.***
		GDOIV2	*Physical Geography of Romania*	2 / 2	1	1	5	This course focuses on the main physical geographical aspects of the Romania's territory. In the first part geographical location in Europe, area, boundaries and neighbors Romania are presented. Also, the importance to the three key elements that characterize Romania is argued, namely: Carpathian Mountains, the Danube and the Black Sea. Further, the natural frame elements are given: landforms and their palaevolution, genetical types, climate, waters, vegetation, fauna and, soils. In the final part of the course is

								presented a physico-geographical regionalization of the Romania's area.
		GDOIV3	*Urban and Rural Geography*	2 / 2	2	2	5	The course is divided into 8 chapters and presents the main features of urban and rural settlements all over the world. The first part of the course is devoted to urban geography. Urban settlements are analyzed in terms of their evolution by identifying specific characteristics for cities which occurred in the same historical period. In another chapter the course presents aspects of territorial development of urban settlements and the reflection of these developments in urban morphology. Urban functions and classification of cities are presented in another chapter. Rural settlements are primarily presented in relation to the natural features that they were and are closely related. Secondly, it presents the classification of the rural settlements.
		GDAIII-IV8	*Modern Language - English 2*	2 / 2	0	2	3	The General English course focuses on accuracy and fluency and it aims at developing the four language skills—listening, speaking, reading, and writing. The course also focuses on improving pronunciation and increasing vocabulary. The four semesters of English are designed to cover the levels: Elementary, Pre-Intermediate, Intermediate, Upper Intermediate.
		GDAIII-IV8	*Modern Language - French 2*	2 / 2	0	2	3	This course aims to help master's degree students deepen their general knowledge of French (written and oral expression) as well as their knowledge of francophone culture and civilization so as to respond appropriately in professional or personal communication in French. The main topics addressed in the course cover different aspects (geographical, cultural, political, etc.) of France and other countries from the European Francophone space (Belgium, Switzerland, Luxembourg), the American continent (Quebec), or Africa (Cameroon, Morocco, etc.).
			Management Activities for Tourism	2 / 2	2	2	5	The Management Activities for Tourism discipline aims to familiarize students with the concepts like travel agency, tour operator, reseller travel agency, ticketing, tour guide, accommodation establishments, touristic product, service packages; with technical operations specific to travel agencies and accommodation facilities, types of contracts used by these intermediaries, booking documents, means and tools that support payments for tourist services, tourism groups managing techniques, and last, but not least, the rights and obligations of guides, travel agents and workers in the accommodation establishments. Of the multiple and diverse processes that are incorporated in tourism activities, the production and marketing of voyages (holidays) are fundamental functions of the travel agencies. Complementary to these tourist activities, the discipline addresses to a number of other tourism services, related to receiving and hosting tourists, providing food or recreational facilities, all of them covered by the term Tourism Operations Technique
		GDOIV11	*Economy of Tourism*	2 / 2	2	2	5	The course deals with the phenomenon of tourism from an economic perspective, at national and also at the global scale, by

								analyzing the inter-connections between: the components of tourism market and the business of tourism planning, types and forms of domestic and international tourism and the different space planning of tourism, with the features in the tourist product offered, economy and the role in relation between potentially resource-tourism product. Also, the detailed complexity of the relationships between: tourism market and the types of tourism, including the role of E-tourism, tourism management and tourism services, tourism activity and economic systems as processes specific to tourism (eg economic valuation of tourism, analyzing indicators etc.). Applied nature of the course is supported in acquiring economic research methodology, interpretation, and management processes specific tourism economy, the ability to implement the strategy of tourism development in territorial tourism potential
		GDOIV12	*Practical Training - Geography*	2 / 2	2		3	
		GDOIV18	*Remote Sensing, GIS and Digital Cartography*	2 / 2	1	2	4	Geographical Information Systems (GIS) belong to the most widespread class of computer systems, where report making it made given the location, spatial and geographical location. This technology has the advantage of access to large volumes of data, the ability to create links between different data sets and to analyze the links between them. In the end the result will represent a synthesis of data from the time of their introduction. Photogrammetry and remote sensing, as well as all disciplines relating to land measurements, have known in this end-of-century essential transformations, both in terms of measuring equipment, processing technologies, measurements, but also in terms of final product required by the user.
		GDOV1	*Touristic Potential of Romania*	1 / 3	2	2	5	
		GDOV3	*Human Geography of Romania*	1 / 3	2	2	5	The course assumes the students' awareness of the place the Romanian landscape played in the formation process of the Romanian people, of the significance of the geographic and geopolitical position of the Romanian territory within the European context. The analysis of the numerous aspects concerning the population (space distribution, structure, internal and international migration, etc) is done both from a geographic and a statistical perspective and also from the perspective of the close connections among geography, sociology, demography, economy and other social sciences. The issues regarding the specific of the human settlements and of the human activities, the urbanization, development and underdevelopment, as well as those regarding the peculiarities of the Romanian economy are approached in strict connection to the important changes caused by the market economy.
		GDAV7	*Sustainable Development in Tourism*	1 / 3	2	2	4	
		GDAV8	*World Regional Geography. Regional Differences*	1 / 3	1	1	5	The course is structured in the nowadays configuration of worlds and continental regions, intra-and inter-continental (as part of a coomon World : e.g. North Atlantic, North African, Sub-Saharan

								Africa, the Arab World, World monsoon. World Far East Asia, World Latino Americans. A.. World regional geography approach is based on understanding the mechanisms of production and geographic diversity analysis by identifying the fundamental criteria of geographical regionalization complex world, understanding the dynamics of macro-regional differentiation. Modern algorithm-regional geographical analysis- on criteria of regional aggregates and spatio-temporal differentiation from our issues, is centered on knowledge of both the natural and socio-economic assessment an topics. Deciphering the mechanisms of geographical structuring and functionality on certain specific area was identified based on analysis of regional differentiation and is subsumed their role and their place in the our era of globalization and world new features
		GDOV11	*Geography of the Environment*	1 / 3	2	2	5	The environment and environmental geography: the subject, the connection between environmental geography and other subjects. General notions of systematics. Defining the geosystem, describing the components, characteristics, and taxonomic scheme of geosystems. Connections between the geosystem components – Specific connections between abiotic components of the environment. Specific connections of biotic components with abiotic system components of the environment Description of anthropic factors that intervene in natural components of the environment (overpopulation of the planet, urbanization ,industry agriculture, infrastructure, tourism, etc.) Natural and anthtropic disturbances of the environment: disturbances of the landscape and of the pedosphere. Soil pollution through athropic activities and the influence of pollutors within the soil on components of the geosystem, waste management methods, principles and strategies used in waste management. Human intervention in marine and continental waters, on the planetary ocean. Water quality modification through pollution and hydrological factors that influence the self-purification of water. Human intervention in biotic components of the environment and creation of protected areas. Deterioration of atmospheric quality through pollution and the effects of some pollutors at a local and global level. Self-purification of air and factors that influence emission, transport, dispersion or stagnation of atmospheric noxa. Disturbances of the geosystem by overexploitation of resources. Resource Conservation. Definition, history and objective of sustainable development. Environmental Policies of the European Union and of Romania regarding environment protection. EU directives on environmental protection translated at a national level. International Conventions concerning the environment Romania adhered to. Presentation of the Organization of the integrated monitoring network of environmental factors in Romania. Implementation of Gaussian patterning utilized in calculating the noxa dispersion in the atmosphere. (Taking into consideration the characteristics of the emission sources,. meteorological factors, etc.) representation of the

								pollution level as isoconcentrations in different geographical areas and validation of the results by measurements. Implementation of a Gaussian-pattern utilized for calculating the self-purification of running waters through dilution (taking into consideration the characteristics and chemical composition of the effluent, characteristics of emissaries and their hydrological parameters) and validation of results through measurements.
		GDAV15	*Ecotourism in Mountain Areas*	1 / 3	1	2	3	Par la diversité paysagiste, la montagne représente des aires polarisantes du phénomène social appelé tourisme. Le tourisme à la montagne est peut-être la forme la plus attrayante de manifestation de ce phénomène qui entraîne autant le physique que le cognitif, dans le bien connu désir humain d'autodépassement, manifesté dans un cadre paysagiste particulier et diversifié dont la grandeur surclasse dans la plupart du temps l'effort physique effectué. L'écotourisme est un concept nouveau qui peut être défini comme le retour à ou vers la nature. Le cours se propose d'être une application, une initiation aux diverses formes de manifestation des directions éco-touristiques à la montagne: randonnée, cyclisme montagnard, spéotourisme.
		GDOV19	*Quaternary Geography*	1 / 3	2	2	3	This course refers to the large global changes produced in the last 1.6 -1.8 millions years of the Earth's existence. The global changes were induced by causes with radical implications on the relief, flora, fauna and human evolution. The framework for understanding environmental change is illustrated by the first chapter about the chronology of Quaternary and the main events: glaciations, sea-level changes, mammal fauna succession. The most important events took place in Pleistocen and generated the climate, shape crust and sea-level changes.
		GDOV12	*Applied Geography*	2 / 3	2	2	6	Geography was always applied, long before it became an identified academic discipline; much geographical knowledge was created for specific purposes. For the first half of the 20th century, the development of geography as an academic discipline was closely associated with its educational role, especially in the preparation of teachers and of teaching materials. Increasingly, however, geographers responded to societal changes—especially the extending role of the state—by promoting their discipline as a potential contributor in a range of activities. Changing objectives geographical sciences (both physical and human nature) from the predominant educational to the direct impact on the environment and society occurred while affirming "quantitative revolution" in geography (Chorley, 1967). Change occurred during the mid 20th century, with the affirming numerous contributions from geographers to solve problems arising in the changing environment and society. The course shows numerous examples of applications of geographical sciences in areas such as: mining, shoreline changes, forest management, dam construction of dams and man-made lakes, river ice jams.
		GDAV15	*Regional Geography of Romania*	2 / 3	2	2	6	The overall aim of the course is to introduce students to the Regional Geography of Romania with the emphasis on the natural

								and socio-economic complexity and diversity of each part of the country. Lectures include discussions on the principles of country regionalization, characterization of the Romanian territory in all its complexity - highlighting the links between the natural environment, humanization and economic development in the geographic regions, regional presentations of the main landscape units (geographical position, aspects regarding specific geology, landforms, climate and hydrography, biodiversity, natural resources, population and settlements, economic activities). Seminars include student oral presentations and several tests based on thematic maps of Romania.
		GDOVI12	*Social Geography*	2 / 3	1	1	4	The main aim of the Social Geography course is the analysis of the social and the geographic relations and of the interrelations between them. It analyzes some social phenomena which are at the same time spatial phenomena or facts: the rural area crises, its depopulation (as a consequence of the birth rate, marriage rate and fertility decrease, of divorce rate increase and population aging, massive urbanization in the developed countries, the decrease in the standard of living in the countries marked by economic reorganization, the incapacity of many people to face the new economic conditions, the growth of the coming back migration (urban-rural) and of the international migration with all its consequences both at a macro-social and at a micro-social level.
		GDAVI14	*Tourism Policy and Sustainable Development*	2 / 3	2	2	6	The course comprises seven chapters that analyze tourism policies from different points of view. In the first part of the course the general factors influencing the types of tourism policies are analyzed. State involvement in tourism and the various organizations that have expertise in this area are presented in the following chapters. A part of the course deals with macroeconomic policies in tourism. Tourism policies in terms of spatial planning is an important part of this course. The relationship between tourism and sustainable development policies is discussed in Chapter 6 of the course. Protection of natural and cultural heritage through tourism policies are subject of the last chapter.
		GDAVI17	*Rural Geography and Tourism*	2 / 3	2	2	4	The course is intended to offer solid theoretical knowledge of rural geography and of rural tourism approaching the rural space characteristics from the view point of the territorial system. It covers the tourism potential and the activities of this type in the rural area, tourism arrangement plans of the rural space, modalities of carrying out research in this field. It defines the basic concepts of the rural space and rural tourism, it explains and interprets the relevance of the relationship between the natural, economic, historical and social factors in the development of the rural space and rural tourism.
		GDOVI20	*Final Paper Preparation*	2 / 3	0	2	4	This subject presents to the future specialists in geography, in the minutest details the rigors and the algorithm of realizing a geographic study equal to the license paper, beginning with how to choose the title and finishing with how to write the conclusions, the

								paper's bibliography and presenting it in front of a board of professor examiners. Special emphasis is placed on the preparation methodology of the study, the chosen methods, the work plan, the database used, the quality of the text, the statistical, graphic and cartographic material, on quotes, on the bibliography used in writing issues etc.

Denumirea programului de studiu (Study Programme)	**Nivelul de studio (Level)**	**Codul cursului (Class code)**	**Denumirea cursului (Subject)**	**Semestrul / anul în care se defăş oară (Semester/ Academic Year)**	**Nr. ore /săptămână (Nr. Hours/week)**		**Nr. Credite (ECTS)**	**Subiectul cursului (max. 500 caractere) (Description)**
					C	S / L / P		
ENVIRONMENTAL GEOGRAPHY	***Undergraduate***	DF0101	*Physical and Human Geografphy*	1 / 1	2	2	5	Le cours de ***Géographie générale*** est une introduction à l'étude des disciplines géographiques et se propose d'assurer une base informative afin de rendre plus accessible la compréhension des faits et des phénomènes géographiques. Le cours est composé de six chapitres: *La Géographie comme science*, *Les bases méthodologiques de la Géographie*, *Les étapes du développement de la Géographie*, *La Terre dans l'Univers*, *Les Géosphères terrestres*, *Les milieux naturels terrestres*.
		DF0101	*Environmental Low, Legislation, Policies and Strategies*	1 / 1	1	1	4	
		DF0101	*General Geology*	1 / 1	2	2	5	The course opens with a general look on the age, chemical composition and structure of the Univers and on the Solar System. After this short introduction, the students will study the structure and composition of the Earth's interior (crust, mantle and core), the different physical properties of the Earth and the various morphotectonic divisions of the Earth's crust, the global tectonic theory (continental drift, seafloor speading and plates). Plate moves as individual units and interactions between plate occur along their edges. Plate interactions are most distinctively expressed by earthquakes and volcanism. The plate margins are the large zones known for the complex igneous and metamorphic processes generating the intrusive and extrusive igneous rocks, pyroclastic rocks. The surface of the Earth'crust is the place where occur various depositional environments characterized by different kinds of sediments and sedimentary rocks.
		DF0101	*Modern Language - English*	1 / 1	1	1	3	The General English course focuses on accuracy and fluency and it aims at developing the four language skills—listening, speaking, reading, and writing. The course also focuses on improving pronunciation and increasing vocabulary. The four semesters of English are designed to cover the levels: Elementary, Pre-Intermediate, Intermediate, Upper Intermediate.
		DF0101	*Modern Language - French*	1 / 1	1	1	3	This course aims to help master's degree students deepen their general knowledge of French (written and oral expression) as well as their knowledge of francophone culture and civilization so as to

								respond appropriately in professional or personal communication in French. The main topics addressed in the course cover different aspects (geographical, cultural, political, etc.) of France and other countries from the European Francophone space (Belgium, Switzerland, Luxembourg), the American continent (Quebec), or Africa (Cameroon, Morocco, etc.).
		DF0101	*Atmosphere and Air Quality*	1 / 1	2	2	4	The course starts with the presentation of the geological history of the evolution of the chemical composition of the terrestrial atmosphere until nowadays and the current chemical composition of the air cover. Then it analyzes the physicochemical features of the main components of the terrestrial atmosphere, their generating and destructive mechanisms, their regime and distribution, the generating sources and their role for human life and health. A special focus is put on the chemical pollution of air, the sources of pollution, the major atmospheric polluters and their impact upon the environment. The direct effects- pollution episodes - and the indirect ones (acid rains, ozone layer depletion, photochemical haze and especially the green house effect) of the chemical pollution of the atmosphere are backed up by numerous case studies, statistic data, graphic and cartographic representations. The greenhouse effect in the current climate changes is presented in detail in an appropriate context. The physical pollution of the atmosphere (radioactive, sonorous, thermic) the biological one and their impact on the environment are two other approach directions of the terrestrial atmospheric pollution. The answer given by the geographical environment to the pollution process is analyzed separately in a chapter entitled factors contributing to self-purification of air. A separate chapter deals with the means and measures available to man to control this process with profound negative connotations. A special attention is paid to monitoring and legislative protection of air quality both in the EU and in Romania.
		DF0101	*Cartography and Topography*	1 / 1	2	2	4	The aim of the course is to give the first information for those interested in geography of general knowledge of Cartography and some elements of Topography. There will be aspects of evolution of the historical point of view of the two disciplines, especially on the evolution of maps, projections used, methods and instruments used in measurements. Working with topographic map, highlighting geographical elements, their importance for linking with statistical data constitute the basis for the understanding and the deepening of geographic specific disciplines.
		DF0101	*Animal and Plant Biology*	2 / 1	2	2	5	The discipline follow the next main aspects: - Cellular organization in plants and animals. - Histological and structural elements of plant and animal bodies; - External and internal structures of animal bodies in relation to phylogeny and adaptation to different environments.

								- Elements of taxonomy, ontogeny and phylogeny; - Classification of plant and animal organisms and the criteria underlying the classification of organisms; The concepts specifics of plant and animal taxonomy.
		DF0101	*Geomorphology*	2 / 1	2	2	4	Geomorphology course overall was published in 2002. He was drafted during a period of over 6 years of evaluation of the latest global trends in knowledge of the relief. The concept behind the course was: the study of the landforms is the most important part of physical geography at the same time we can consider as the basis of physical geography (De Martonne, 1926). Geomorphology position throughout the natural sciences has been assessed against the following milestones: *first*, that its object of study is the morphology of the land surface or other planets, as an interface between the solid part (lithosphere) and the fluid (the atmosphere and hydrosphere) of the Earth; *secondly*, given the feedback relations between the two areas and their correspondence to the level of the science.From here two approaches of the landforms were release: first, geological geomorphology or the knowledge of the role the structure and lithological composition in defining of the relief; and secondly, the morphosculpture or the knowledge of the large systems of landforms modelling. In the final part we have been highlighting the role of anthropogenic effects on of the relief dynamics.
		DF0101	*Informatics*	2 / 1	1	1	3	This course is an introduction in the acquisition, analysis and presentation of 'geospatial' information. Includes: Fundamentals of Geographic Information Science, Applications of Geographic Information Science, Types of geospatial data, Cartography and Geo-Information Visualization, Geospatial data sources on the Internet and Web Mapping. The overall aim of the course is to develop students' understanding, approach and technical skills in geospatial data acquisition, processing, analysis, management and visualization for addressing scientific questions related to Earth system science. The lectures lay the foundation for understanding the theoretical aspects of geo-informatics and the labs provide an opportunity for the students to use geospatial data, software tools (ArcGIS, Global Mapper), models, and visualization environments.
		DF0101	*Hydrology and Oceanography*	2 / 1	2	2	4	Resources of water on Earth. Global Problems. Underground water (hydrogeology). Hidrology of rivers (potamology). Lymnology. Glaciology. Hidrology of swamps (telmatology). Pollution and management of water resources. Oceanography.
		DF0101	*Economic Geography*	2 / 1	2	2	4	The course intends to present the general features of the world economic geography and to make known the political and economic world map by identifying the geo-economic types of countries according to the level of economic development. It contains theoretical aspects of the economic geography of the world related to the theories and doctrines of the economic development. It identifies the reciprocal relationships between the components and the elements of the world economy from the geographic viewpoint. The relationships among the natural,

								economic, historical and social factors in the geographic development and distribution of the world economy branches are explained and interpreted. Also, the connections among natural resources, economic evolution, the level of economic development and the geo-economic country types within the world economy are presented.
		DF0101	*Modern Language - English 2*	2 / 1	1	1	3	The General English course focuses on accuracy and fluency and it aims at developing the four language skills—listening, speaking, reading, and writing. The course also focuses on improving pronunciation and increasing vocabulary. The four semesters of English are designed to cover the levels: Elementary, Pre-Intermediate, Intermediate, Upper Intermediate.
		DF0101	*Modern Language - French 2*	2 / 1	1	1	3	This course aims to help master's degree students deepen their general knowledge of French (written and oral expression) as well as their knowledge of francophone culture and civilization so as to respond appropriately in professional or personal communication in French. The main topics addressed in the course cover different aspects (geographical, cultural, political, etc.) of France and other countries from the European Francophone space (Belgium, Switzerland, Luxembourg), the American continent (Quebec), or Africa (Cameroon, Morocco, etc.).
		DF0101	*Global Environmental Changes*	2 / 1	1	1	4	The course will introduce some of the major themes in global environmental changes, including both natural and human-induced. The study of Global Environmental Change provides the context for understanding how humans have interacted with the environment over time and how to project future environmental changes.
		GDOIII1	*General Ecology and Biogeography*	1 / 2	2	2	6	This course describes the spatial patterns of the ecological factor influences on species distributions on Earth and tries to explain the complex causes of these patterns. The fundamental biogeographic processes that determine the biogeographic areal formation and evolution are detailed presented. Conservation biogeography is also approaches. The tools of GIS and Remote Sensing are use for the biogeographic spatial analyses.
		GDOIII2	*Impact Studies Preparation Methodology*	1 / 2	1	1	4	
		GDOIII3	*Environmental Pollution and Waste Management*	1 / 2	2	2	6	The course is structured into for main parts: air, water, edaphic environments and waste. For the three natural environments their characteristics are presented in anthropogenic nonintervention conditions and also the mechanisms, the ways and consequences of human intervention beyond certain limits (thresholds) resulting in their chemical, physical and biological pollution. Great importance is paid to monitoring air, water and soil quality and their legislative protection. As far as waste is concerned, it is defined and classified, qualitatively and quantitatively evaluated, in terms of characteristics and impact on soil, water (drainage water impact from landfills and methods of neutralizing them) and air quality (gas features resulted from controlled waste deposits and their utilization as biogas). A

								special attention is paid to sustainable waste disposal methods, minimization of waste at source, recovery, recycling and reuse of waste, controlled storage, management of waste through incineration and hazardous waste management. National and EU policies and strategies are approached with a view to sustainable waste management but also the national and EU legislation on waste management.
		GDOIII4	*Soil Science*	1 / 2	2	2	6	This course starts with a short presentation of soil science and history of soil science development, followed by the detailed description of soil genesis and evolution (factors and processes), material constitution and soil properties. A special part presents soils of the world: classifications, genesis, properties and geographical distribution. Laboratory tests and field trips develop student competency in soil description, analysis, and assessment of GDOIII1human impact on soil quality.
		GDOIII-IV6	*Modern Language - English*	1 / 2	0	2	3	The Gene GDOIII1ral English course focuses on accuracy and fluency and it aims GDOIII1at developing the four language skills—listening, speaking, reading, and writing. The course also focuses on improving pronunciation and increasing vocabulary. The four semesters of English are designed to cover the levels: Elementary, Pre-Intermediate, Intermediate, Upper Intermediate.
		GDOIII-IV6	*Modern Language -French*	1 / 2	0	2	3	This course aims to help master's degree students deepen their general knowledge of French (written and oral expression) as well as their knowledge of francophone culture and civilization so as to respond appropriately in professional or personal communication in French. The main topics addressed in the course cover different aspects (geographical, cultural, political, etc.) of France and other countries from the European Francophone space (Belgium, Switzerland, Luxembourg), the American continent (Quebec), or Africa (Cameroon, Morocco, etc.).
		GDOIII19	*Environmental Chemistry*	1 / 2	2	2	5	The Environmental Chemistry studies: chemical components of the natural environment and the pollutant, biochemical interactions between the biotic and abiotic environment, biogeochemical circuit elements in nature, transport and biochemical reactions of the elements that make up the air, water, soil and natural chemical composition changes environmental components due to the contribution of natural and anthropogenic pollutants chemical products.
		GDOIII-IV6	*Modern Language - English, French*	2 / 2	0	2	3	The General English course focuses on accuracy and fluency and it aims at developing the four language skills—listening, speaking, reading, and writing. The course also focuses on improving pronunciation and increasing vocabulary. The four semesters of English are designed to cover the levels: Elementary, Pre-Intermediate, Intermediate, Upper Intermediate.
		GDOIII-IV6						This course aims to help master's degree students deepen their general knowledge of French (written and oral expression) as well as their knowledge of francophone culture and civilization so as to respond appropriately in professional or personal communication in

								French. The main topics addressed in the course cover different aspects (geographical, cultural, political, etc.) of France and other countries from the European Francophone space (Belgium, Switzerland, Luxembourg), the American continent (Quebec), or Africa (Cameroon, Morocco, etc.).
		GDAIV7	*Physical Geography of Romania*	2 / 2	2	2	6	This course focuses on the main physical geographical aspects of the Romania's territory. In the first part geographical location in Europe, area, boundaries and neighbors Romania are presented. Also, the importance to the three key elements that characterize Romania is argued, namely: Carpathian Mountains, the Danube and the Black Sea. Further, the natural frame elements are given: landforms and their palaevolution, genetical types, climate, waters, vegetation, fauna and, soils. In the final part of the course is presented a physico-geographical regionalization of the Romania's area.
		GDOIV10	*Environmental Geology*	2 / 2	2	2	5	The environment is the sum of all the features and conditions surrounding an organism that may influence it. An individual's physical environment contains rocks, soils, air and water, such factors as light and temperature and other organisms. The environmental geology is a term usually restricted to refer particularly to geology as it relates directly to human activities. The students will learn to examine how geologic processes and hazards influence human activities and sometimes the reverse, the geologic aspects of pollution and waste-disposal problems.
		GDOIV11	*Practical Training Geography*	2 / 2			3	
		GDAIV12	*Human Concentrations and Environmental Quality*	2 / 2	2	2	5	The course aims to present the main human concentrationsin the world. It presents the densely populated areas and the largestconurbations in the world. The analysis of the impact of population concentrations on the environmental components is another issue being addressed.Quality of urban life and human healthin urban areas are other topics discussed.
		GDAIV15	*Economic Activities Influences on Environment*	2 / 2	1	1	4	
		GDAIV17	*Organized Spelaean Environments*	2 / 2	1	1	4	
		GDOV1	*Geography of the Environment*	1 / 3	2	2	6	The environment and environmental geography: the subject, the connection between environmental geography and other subjects. General notions of systematics. Defining the geosystem, describing the components, characteristics, and taxonomic scheme of geosystems. Connections between the geosystem components – Specific connections between abiotic components of the environment. Specific connections of biotic components with abiotic system components of the environment Description of anthropic factors that intervene in natural components of the environment (overpopulation of the planet, urbanization ,industry agriculture, infrastructure, tourism, etc.) Natural and anthtropic

								disturbances of the environment: disturbances of the landscape and of the pedosphere. Soil pollution through athropic activities and the influence of pollutors within the soil on components of the geosystem, waste management methods, principles and strategies used in waste management. Human intervention in marine and continental waters, on the planetary ocean. Water quality modification through pollution and hydrological factors that influence the self-purification of water. Human intervention in biotic components of the environment and creation of protected areas. Deterioration of atmospheric quality through pollution and the effects of some pollutors at a local and global level. Self-purification of air and factors that influence emission, transport, dispersion or stagnation of atmospheric noxa. Disturbances of the geosystem by overexploitation of resources. Resource Conservation. Definition, history and objective of sustainable development. Environmental Policies of the European Union and of Romania regarding environment protection. EU directives on environmental protection translated at a national level. International Conventions concerning the environment Romania adhered to. Presentation of the Organization of the integrated monitoring network of environmental factors in Romania. Implementation of Gaussian patterning utilized in calculating the noxa dispersion in the atmosphere. (Taking into consideration the characteristics of the emission sources,. meteorological factors, etc.) representation of the pollution level as isoconcentrations in different geographical areas and validation of the results by measurements. Implementation of a Gaussian-pattern utilized for calculating the self-purification of running waters through dilution (taking into consideration the characteristics and chemical composition of the effluent, characteristics of emissaries and their hydrological parameters) and validation of results through measurements.
		GDOV2	*Pollution and Protection of the Environment*	1 / 3	2	2	6	Regarding the sources of air pollution they are of 2 types: stationary sources and mobile sources emanating in the air various gaseous and particulate pollutants. Air pollution control methods are: wet methods and dry methods. As measures to protect water quality treatment methods are presented for each type of heavily polluted water: mechanical treatment, biological activated sludge biological treatment in anaerobic conditions, tertiary treatment for removal of nitrogen and phosphorus. The main anthropogenic factors that cause soil degradation are deforestation, inappropriate agricultural works, domestic and industrial waste disposal, mining.
		GDAV4	*Human Geography of Romania*	1 / 3	2	2	6	The course assumes the students' awareness of the place the Romanian landscape played in the formation process of the Romanian people, of the significance of the geographic and geopolitical position of the Romanian territory within the European context. The analysis of the numerous aspects concerning the population (space distribution, structure, internal and international migration, etc) is done both from a geographic and a statistical perspective and

								also from the perspective of the close connections among geography, sociology, demography, economy and other social sciences. The issues regarding the specific of the human settlements and of the human activities, the urbanization, development and underdevelopment, as well as those regarding the peculiarities of the Romanian economy are approached in strict connection to the important changes caused by the market economy.
		GDAV6	*Natural and Anthropic Risks and Hazard*	1 / 3	1	1	4	Natural and anthropogenic hazards (droughts, floods, blizzards, or nuclear accidents, industrial accidents, military and social conflicts etc.) have a direct or indirect influence on each of the humans. Following the increasing damage by hazards and loss of human lives in the last decades was created an extensive research program entitled "International Decade for reducing the effects of Natural Disaster ". This course aims to acquire practical skills for investigating hazards from causes to effects of abilities necessary corrective measures of protection and the formation of adequate attitude to minimize the risks and for solving problems in situations of disaster and catastrophe. **Specific competences:** • new terminology used in different contexts; • the use of investigative procedures; • analyzing the observed relationships between hazard and society; • analyze natural hazards and man; • analyzing major changes at planetary level; • cartographic localization of areas with high frequency of hazards; • description of coherent phenomena and processes observed directly and indirectly; • to identify ways of preventing and mitigating risk phenomena; • summarizing the main issues that belong to hazard; • analyzing the disastrous effects produced by hazards; • interpreting the information in the media.
		GDOV12	*Environmental Economy*	1 / 3	1	1	4	
		GDAV15	*Ecotourism in Mountain Areas*	1 / 3	1	2	4	Par la diversité paysagiste, la montagne représente des aires polarisantes du phénomène social appelé tourisme. Le tourisme à la montagne est peut-être la forme la plus attrayante de manifestation de ce phénomène qui entraîne autant le physique que le cognitif, dans le bien connu désir humain d'autodépassement, manifesté dans un cadre paysagiste particulier et diversifié dont la grandeur surclasse dans la plupart du temps l'effort physique effectué. L'écotourisme est un concept nouveau qui peut être défini comme le retour à ou vers la nature. Le cours se propose d'être une application, une initiation aux diverses formes de manifestation des directions éco-touristiques à la montagne: randonnée, cyclisme montagnard, spéotourisme.
		GDOVI3	*Applied Geography*	2 / 3	2	2	6	Geography was always applied, long before it became an identified academic discipline; much geographical knowledge was created for specific purposes. For the first half of the 20th century, the

								development of geography as an academic discipline was closely associated with its educational role, especially in the preparation of teachers and of teaching materials. Increasingly, however, geographers responded to societal changes—especially the extending role of the state—by promoting their discipline as a potential contributor in a range of activities. Changing objectives geographical sciences (both physical and human nature) from the predominant educational to the direct impact on the environment and society occurred while affirming "quantitative revolution" in geography (Chorley, 1967). Change occurred during the mid 20th century, with the affirming numerous contributions from geographers to solve problems arising in the changing environment and society. The course shows numerous examples of applications of geographical sciences in areas such as: mining, shoreline changes, forest management, dam construction of dams and man-made lakes, river ice jams.
		GDAV9	*Geography of Europe*	2 / 3	2	2	5	In World Regional Geography lecture , the Geography of Europe proposes a systemic approach to continental assembly, existing regional structures and their dynamics. In the teaching course, the concepts which are being deciphered are the geographic region, regionalization and territorial differences exhibited in the European context in a manner that integrates geosystem elements in the continental assembly, understanding of the role of territorial differentiation of geographical landscapes, natural or cultural dominance in interacting with their socio-economic level of the whole continental, regional and state.
		GDOVI11	*Water Resources Management*	2 / 3	2	2	6	*Water – source of life* **(**The role of water in the life of ecosystems and people, Water within natural and social systems, History of thinking on water resources management). *Management of water between aim and opportunity* **(**Standards of sustainability. The evaluation of the current stare of global water resources. Major features of administration of global water resources. Major problems for the future. Promising prospects for nowadays and future problems through and improved administration of water resources). K*nowledge on modification of ecosystems* **(**Fast innovation. Progressive development. Change of social values. Personal recognizing. A historical-geographical view on human recognition). *Natural waters* **(**Natural circuit of water, precipitations, evapotranspiration, water flowing, depth water, snow and ice and water quality). *Underground waters* **(**Depth water from Europe. Situation of depth water resources in Europe. Making decisions). *Lakes and humid areas* **(**Significant characteristics of the lakes. Lakes management. Management of humid areas). *The minor and major river beds* **(**Anthropogenic utilization of minor and major river beds. Major bed functions. Minor and major river bed management. Systematic arrangements of the river beds. Systematic usage of the major river bed. River restoration and ecosystem functions. Global monitoring of floods as hazards). *Dammed rivers and anthropogenic lakes*

								(Functions, effects and the context changing of the river embankment. Big dams effects on the environment). *Household and industrial waters administration* **(**International initiatives on household waters. Industrial water usage. Deficiencies between water infrastructure and environment administration. Water quality and environmental protection. Water sources protection (springs, wells etc.). Management of used waters back flowing). *Making decisions* **(**Engineering project. Economic evaluation. Selection variable in the making decisions process). *Integrative approach* **(**Management of dividing ranges. Global environmental management).
		GDOVI13	*Environmental Thematic Mapping*	2 / 3	1	2	4	The aim of this course is to link fundamental concepts of thematic mapping, statistics, geospatial information and GIS mapping for environmental studies. The lectures introduce fundamentals of map design, specifically for thematic maps, which are complimenting any environmental study project, emphasize the nature of geospatial data (with special discussions on the importance of topographic maps, aerial images and remote sensing imagery), their acquisition and processing and also discuss specific techniques of thematic mapping and analysis of the physical and cultural themes of the environment. Through intensive practical exercises, students will have the opportunity to acquire hands-on experience in analysis and processing of different sources of geospatial information using ArcGIS package, popular in environmental applications.
		GDAVI17	*Topoclimatology*	2 / 3	2	2	5	The course begins with a short history of topoclimatology and microclimatology development, the subject matter, methods and means of research of these climatological branches. Then there are analyzed the topo- and microclimate generating factors, the greatest accent being placed on the ability of the active surface to generate topo-climates and micro-climates. The distribution in the topo- and microclimatic area of the main climatic elements (temperature, humidity and wind) are paid a special attention. Another highlighted issue is represented by the features of some microclimates (the microclimate of herbaceous vegetation, the microclimate of small pools of waters, the microclimate of relief microforms, the microclimate of caves) and topo-climates (forest and urban) with a special emphasis on: generating climate factors and particularities of elements/ weather and climate phenomena within them.
		GDOVI19	*Final Paper Preparation*	2 / 3	0	2	4	This subject presents to the future specialists in geography, in the minutest details the rigors and the algorithm of realizing a geographic study equal to the license paper, beginning with how to choose the title and finishing with how to write the conclusions, the paper's bibliography and presenting it in front of a board of professor examiners. Special emphasis is placed on the preparation methodology of the study, the chosen methods, the work plan, the database used, the quality of the text, the statistical, graphic and cartographic material, on quotes, on the bibliography used in writing issues etc.