

HAROKOPIO UNIVERSITY OF ATHENS

# SCHOOL OF ENVIRONMENT, GEOGRAPHY AND APPLIED ECONOMICS

# **DEPARTMENT OF GEOGRAPHY**

# POSTGRADUATE PROGRAMME

# "APPLIED GEOGRAPHY AND SPATIAL PLANNING"

**Study Guide** 

# ACADEMIC YEAR 2016-2017



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# Harokopio University of Athens

Harokopio University of Athens is a public higher education institution founded in 1990. Both the organization and development of the university are based on high international standards and recent scientific research discourses and findings. Harokopio University combines theoretical teaching with laboratory research, making use of academic lecturing, laboratory experiments and field work as well as modern learning technology. Its basic aim is to promote scientific knowledge and contribute towards the improvement of the economic, social and cultural development of the country. The university is currently running four Departments: Department of Home Economics and Ecology (1993), Department of Dietetics and Nutritional Science (1994), Department of Geography (2000), Department of Informatics and Telematics (2006).

### The Department of Geography

The Department of Geography which operates for 13 years now is staffed with 19 members as well as appropriate administrative and supporting staff. The Department combines Human, Physical and Applied Geography, offering truly multidisciplinary knowledge and skills to the students. The Department runs a Postgraduate Programme also, which is divided to three distinct, partly autonomous streams: a) Management of Natural and Human Induced Risks and Hazards, b) European Policies, Planning and Spatial Development, and c) Geoinformatics. Although Geography is a novel academic and research field for Greece, the number of applicants to the postgraduate Programme of the Department rises significantly in the course of time.

# Structure of the Postgraduate Programme "Applied Geography and Spatial Planning"

The Department of Geography commenced its Post-graduate Studies Programme (PSP) **Applied Geography and Spatial Planning** in the academic year 2005-2006. The PSP lasts three semesters (two semesters of lecturing modules and one semester for the elaboration of the MSc thesis) and operates three streams:

**Stream A: Management of Natural and Human Induced Risks and Disasters** which aims at offering theoretical and applied knowledge on issues referring to the meaning of natural and environmental risks and interrelated terms, the analysis of the natural processes which might trigger disasters, the social and economic impacts of disasters, the concepts of vulnerability, exposure and resilience, the use of modern technologies in disaster management, and the policies aiming at mitigation, preparedness, emergency and recovery / rehabilitation / reconstruction.

**Stream B: European Policies, Planning and Spatial Development** which aims at offering / disseminating knowledge on issues referring to the European institutions and European integration processes, the art of spatial planning at regional, national and European level, the urban and rural development / restructuring patterns of Europe, the social exclusion and segregation in cities, and the migration policy and flows at different scales. In addition, the stream supports training on methods of scientific research in geography and spatial analysis.

**Stream C: Geoinformatics** which aims at transferring knowledge on issues relevant to technologies of geo-informatics and their special applications for analyzing geographical data, the spatial data bases, the sophisticated techniques of utilizing geographical information systems and remote sensing and the simulation/modeling of geographical data. In addition, there is training on methods of scientific research in geography and spatial analysis.



Photo 1: From the fieldtrip of the postgraduate students to Brussels in 2006

Each one of the Courses is essentially independent, although there are a number of common modules. The modules are organized in the form of lectures and/or seminars, while apart from the teaching staff of the Department, some invited speakers from Greece and abroad contribute substantially to the lecturing and Programme.

The objective of the Postgraduate Programme is to educate students and future professionals / officials / researchers / NGO representatives and others so as to be able to plan and manage spatial interventions at various scales of the urban and regional space. In other words the PSP staff aspires to the graduation of experts and specialists

ready to apply for a job in the public and private sector and/or third sector organizations, and promote research and production of original knowledge in the domain of Applied Geography and Spatial Planning.

The Postgraduate Programme awards the Postgraduate Diploma of Specialization in the fields of knowledge of the three Streams as outlined above. The official bodies for the organization and operation of the Postgraduate Programme are the General Assembly of the Department of Geography, the Coordinating Committee and the Director of Postgraduate Studies.



Photo 2: From the fieldtrip of the postgraduate students to a) the European Space Agency - Rome (2013), b) Italian Civil Protection (2013), c) and d) Berlin (2014), e) Cephalonia Island (2014), f) Prefecture of Arta (2015), f) and g) Evros (2016)

# Stream A: MANAGEMENT OF NATURAL AND HUMAN INDUCED RISKS AND DISASTERS

Modules						
1 <sup>st</sup> Semester (winter)	Module category	ECTS				
1. Environmental Risks and Security K.E. Lazaridi, P. Katsafados	Compulsory	7,5				
2. Natural Processes, Hazards, and Disasters E. Karymbalis, P. Katsafados	Compulsory	7,5				
3. Vulnerability and Risk: Prevention and Preparedness K. Sapountzaki	Compulsory	7,5				
<ol> <li>Social and Economic Impacts of Disasters (not offered for academic year 2016-17)</li> <li>P.M. Delladetsimas</li> </ol>	Optional	7,5				
5. Scientific Research Methods in Geography A.G. Papadopoulos, G. Mavrommatis, P. Artelaris	Optional	7,5				
6. Institutions and Security Policy in European Space <i>G. Kritikos</i>	Optional	7,5				
2 <sup>nd</sup> Semester (spring)	Module category	ECTS				
1. Emergency Planning I. Parcharidis	Compulsory	7,5				
2. Disaster Recovery and Reconstruction Planning <i>P.M. Delladetsimas</i>	Compulsory	7,5				
3. Natural Hazards along the Coastal Zone <i>E. Karymbalis</i>	Optional	7,5				
4. Local Sustainable Development and Social Resistance K. Sapountzaki, C. Hadjimichalis	Optional	7,5				
5. Geoinformatics for Disaster Management C. Chalkias, I. Parcharidis	Optional	7,5				
6. Applied Spatial Analysis A. Tragaki, S. Kalogirou	Optional	7,5				
7. Governance of Environmental Risk G. Balias	Optional	7,5				
3 <sup>rd</sup> Semester (winter)	Module category	ECTS				
Postgraduate Thesis	Compulsory	30				

# Stream B: EUROPEAN POLICIES, PLANNING AND SPATIAL DEVELOPMENT Modules

1st Semester (winter)	Module category	ECTS
1. Scientific Research Methods in Geography A.G. Papadopoulos, G. Mavrommatis, P. Artelaris	Compulsory	7,5
2. Planning and Spatial Development: Theories and Practices <i>C. Hadjimichalis</i>	Compulsory	7,5
3. Regional Development and Policy S. Skordili, P. Artelaris	Compulsory	7,5
4. Migration Policy and Migratory Flows A.G. Papadopoulos, A. Tragaki, G. Mavrommatis	Optional	7,5
5. Institutions and Security Policy in European Space G. Kritikos	Optional	7,5
2 <sup>nd</sup> Semester (spring)	Module category	ECTS
1. Urban Development and Redevelopment Policies <i>P.M. Delladetsimas</i>	Compulsory	7,5
2. Globalization and Restructuring of European Space S. Skordili	Compulsory	7,5
3. Development and Restructuring of Rural Europe A.G. Papadopoulos	Optional	7,5
4. Local Sustainable Development and Social Resistance K. Sapountzaki, C. Hadjimichalis	and Social Resistance Optional 7,5	
5. Inequalities and Social Segregation in European Cities (not offered for academic year 2016-17) T. Maloutas	Optional	7,5
6. Applied Spatial Analysis A. Tragaki, S. Kalogirou	Optional	7,5
7. The Demographic Factor in the EU Economic and Social Policy <i>A. Tragaki</i>	Optional	7.5
8. Methods of Regional Analysis with Emphasis on Spatial Econometrics <i>P. Artelaris</i>	Optional	7.5
9. Trasnationalism and Specific Questions of Human Geography G. Mavrommatis	Optional	7,5
3 <sup>rd</sup> Semester (winter)	Module category	ECTS
Postgraduate Thesis	Compulsory	30

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# Stream C: GEOINFORMATICS

# Modules

1 <sup>st</sup> Semester (winter)	Module category	ECTS
1. Scientific Research Methods in Geography A.G. Papadopoulos, G. Mavrommatis, P. Artelaris	Compulsory	7,5
2. Applied GIS Based Geographical Analysis C. Chalkias	Compulsory	7,5
3. Advanced Topics of Remote Sensing <i>I. Parcharidis</i>	Compulsory	7,5
4. Spatial Databases C. Chalkias	Compulsory	7,5
2 <sup>nd</sup> Semester (spring)	Module category	ECTS
1. Research Themes in Geoinformatics Seminar	Compulsory	7,5
2. Programming for spatial data analysis S. Kalogirou	Optional	7,5
3. Geomodeling P. Katsafados	Optional	7,5
4. Geoinformatics for Disaster Management C. Chalkias, I. Parcharidis	Optional	7,5
5. Applied Spatial Analysis A. Tragaki, S. Kalogirou	Optional	7,5
<ol> <li>Methods of Regional Analysis with Emphasis on Spatial Econometrics</li> <li>P. Artelaris</li> </ol>	Optional	7,5
3 <sup>rd</sup> Semester (winter)	Module category	ECTS
Postgraduate Thesis	Compulsory	30

### **Modules Brief Description**

# Stream A: MANAGEMENT OF NATURAL AND HUMAN INDUCED RISKS AND DISASTERS

#### 1<sup>st</sup> Semester (winter)

#### Environmental Risks and Security (Compulsory)

Module Leaders: K.E. Lazaridi, P. Katsafados

#### Natural processes, hazards and disasters (Compulsory)

The main aim of this module is the analytical approach of natural processes, the way that these processes contribute and configure natural and human systems and what are their consequences to its evolution. Furthermore, the relationships among natural processes and natural hazards - extreme events - human activities - vulnerability and society are also examined. The module includes the following topics: Description and analysis of internal and external natural processes and hazardous phenomena. Introduction to atmospheric physics. Formation and evolution of extreme weather events. Climate change and enhanced greenhouse effect. Large scale atmospheric phenomena. Climate projections and climate scenarios. Earthquakes, volcanic activity, mass movements (landslides, rock-falls, earth-flows). Natural and human-induced causes of fluvial floods. Tsunami waves, anticipated sea-level rise, storm surges and effects along the coastlines. Extraterrestrial hazards. Geographic distribution of hazardous natural processes. Methodologies of extreme events prediction. Methods of of natural processes impacts' assessment. Examples of natural disasters from Greece and all over the world.

Module Leaders: Efthimios Karymbalis, Petros Katsafados

#### Vulnerability and Risk: Prevention and Preparedness (Compulsory)

Analysis and interpretation of the term *Vulnerability* as a critical component of *Risk* (and Disaster Risk). Identification of determinant factors and qualitative and quantitative methodologies of vulnerability assessment. Consideration of the several aspects of Vulnerability, human, social, economic, institutional, technical, territorial. Familiarization of the students with the methodologies, processes, policies and measures leading to Vulnerability Reduction and Risk Mitigation, in particular long-term prevention (including preventive land use planning) and short term preparedness. Searching for the role of Resilience and Risk Perception in vulnerability fluctuations and risk governance and management. Acknowledgement of the relevant importance of technology, social and political organization, development level and risk culture. The module includes the following topics: The concepts of Risk and Vulnerability from a historical perspective – Categories of modern risks (environmental, natural, technological, Na-Tech etc), coping processes and relevant

problems – Trust and credibility in the relationships and communication among the Risk (scientific) community, political / administrative decision-making and the lay public – Beck's concept of "Risk Society" – Forms of vulnerability and vulnerability agencies – Vulnerability at macro- and micro- spatial scales, vulnerability of economic structures, administrative agencies, private individuals, businesses, households, lifelines etc – Vulnerability and Risk Analysis models: Behaviorism, structuralism, and the ecological model – Vulnerability components: Exposure, Resistance, Resilience, Response / Coping Capacity – Risk Management options – Systematic integration of prevention / mitigation into development planning: Costs and benefits – Mitigation policies against floods – Mitigation policies against seismic disasters – Forest fire prevention and preparedness policies – Examples of risk mitigation policies from Greece and the international experience – Risk Governance.

Module Leader: Kalliopi Sapountzaki

#### Social and Economic Impacts of Disasters (Optional)

(not offered for academic year 2016-17)

Module Leader: P.M. Delladetsimas

#### Methods of scientific research in Geography (Optional)

The main objective of this module is to enable students to design and implement research projects giving particular emphasis on geographical applications. This objective can be achieved to the extent that students are given the opportunity to develop the following qualities: firstly, to be able to construct research hypotheses and questions on the basis of a theoretical discussion; Secondly, to elaborate further on their research questions as to select the appropriate methods and techniques of quantitative and qualitative research; Thirdly, to collect and analyze quantitative and qualitative data, taking into consideration the particularities of each research field and be able to draw conclusions; Finally, to be in position to combine quantitative and qualitative methods as well as quantitative and qualitative data. The module includes the following topics: Brief presentation of the epistemological principles that lay behind the quantitative and qualitative research methodologies. Presentation and appraisal of the role of theory for pursuing the appropriate research design. Comparing the characteristics of quantitative and qualitative methodologies. Laying the foundations of social science and geographical research. Research design and preparation for empirical research. Basic characteristics of questionnaire design and various strategies for collecting quantitative data. Basic characteristics of the different qualitative methods and the strategies for collecting qualitative data. Analyzing quantitative data with the use of specialized software. Analyzing qualitative data with the use of specialized software. Utilizing mixed methodologies. Developing strategies for combining quantitative and qualitative data. Cartographic illustrations of quantitative and qualitative data.

Module Leaders: Apostolos G. Papadopoulos, Panagiotis Artelaris, George Mavrommatis

#### Institutions and security policies in European space (Optional)

The objectives of this module are: to give students a grounding in the theory and practice of international security in the contemporary era, to develop in students the ability to think critically and constructively about the key debates in international security studies and to train students to evaluate constructively and analytically the real challenges or policy-choices confronting policymakers. This module examines the various concepts of order and disorder in the pre-Cold War and post-Cold War periods by providing a coherent mixture of theoretical and empirical study-cases in European as well as in international space. The early seminars go through the major theoretical perspectives on security and later seminars discuss some of the key problems those theories try to address. The following seminars critically evaluate the ability of the main theories of Security Studies to analyze international security focusing on different study cases such as diplomacy and foreign policy, humanitarian intervention and the role of NGOs in humanitarian crises, terrorism and other forms of insecurity (i.e. environmental, societal, etc.), migration policy and refugees, borders in a geographical perspective and the 'fortress' of Europe, nationalisms and ethnic conflicts or wars, etc. Module Leader: Georgios Kritikos

# 2<sup>nd</sup> Semester (spring)

#### **Emergency planning** (Compulsory)

The main objective of this module is acquiring knowledge about emergency planning based on the existing legal framework, as well as on rehabilitation and reconstruction processes in the areas affected by disaster. The module includes the following topics: The concept of readiness, preparedness and emergency mechanisms programs - forecast and early warning in cases of floods, earthquakes, forest fires - awareness programs for citizens and drills - Civil Protection Organizations at national, European and international level - Legal Protection Policy framework in Greece, emergency plans "Xenocrates" for emergency planning. Emergency management disaster - Experiences from the Greek and international. Models in Crisis Management - The readiness standards for emergency services - specific cases (eg. schools and hospitals evacuation plans, etc.).

Module Leader: Isaak Parcharidis

#### **Disaster Recovery and Reconstruction Planning** (Compulsory)

Module Leader: P.M. Delladetsimas

### Natural Hazards along the coastal zone (Optional)

The aim of the course is to empower students in better *understanding* of issues regarding the coastal zone. The course also explores coastal processes, that act along the coastline (waves, tides, currents, long-term sea-level changes, aeolian processes) and configure the coastal morphological characteristics. Particular emphasis is given to the study of the mechanisms (hazardous processes) that cause disasters along the

coasts and threaten coastal communities. Additionally, methods of coastal hazards prediction as well as ways of assessment of susceptibility and vulnerability of coastal areas to natural hazards are analyzed, while mitigation measures for various coastal hazards are discussed. The module includes the following topics: Coastal zone definition according to geomorphological and managerial approaches. Introduction to physical coastal processes (waves - with particular reference to tsunamis, coastal currents, tides, storm surges, long-tem sea-lever changes, coastal erosion, submarine landslides). Coastal sediment budget (prograding coasts - retreating coasts). Coastal erosion - causes - assessment of the susceptibility of coastal areas to long-term erosion - counter measures - structures against coastal erosion (groins, jetties, breakwaters, sea-walls) - soft shoreline protection solutions (beach nourishment). Climate change impacts on coastal systems and impact assessment methods. Response of coastal areas to the anticipated sea-level rise. Monitoring systems along coasts- early warning systems. The role of the Integrated Coastal Zone Management (ICZM) in coastal hazards prevention. The Greek legal system regarding coastal areas - the role of EU discussion.

#### Module Leader: Efthimios Karymbalis

#### Local Sustainable Development: Programs and Social Resistance (Optional)

The basic objective of the module is to elevate the possibilities but also the obstacles encountered by local agencies and populations of specific places in Greece and Europe so as to plan and implement their own social and economic development. The module puts emphasis on local actions and programmes with positive outcome. The module focuses in particular on local social movements which either protect local resources by means of resisting actions, or proceed to positive action in the context of a social economy. Among the aims of the module is to elevate the relationship between local economic development and sustainable development (environmental-economicsocial) in the crisis period and to describe also the possibilities/limitations of social action toward sustainable development at the local level. Post-graduate students have the opportunity to understand problems of Local Development by means of both theoretical and practical teaching material so as to be prepared for their participation in multi-disciplinary teams elaborating Local Development Plans and Programmes. The module includes the following topics: Defining Local Economic and Social Development and relationships with regional and urban development - The notion of Sustainable Development and inherent contradictions – Modern practices of Local Development and spatial division of labour in economic crisis periods – "Botom up" and "Top-down" development interventions, endogenous and exogenous development, Local Development supporting local environment protection – The concept of Local Sustainable Development versus neo-liberalism, "Agenda 21" and the Aalborg Charter, national and European policies toward Local Development (Local Development Companies, Local Quality and Employment Conventions, cooperation networks, etc) – Local Development and natural resources - Local Self-government, NGOs and Local Governance - Informal economy, local labour markets, risks, uncertainty and resilience in Local Development - Local Development and adaptation to Climate Change - Theories of collective social action, social enterprises, local social movements, social resistance and positive initiatives – The process of elaboration and layout of a Local Development Programme – Examples of successes and failures of LDP.

Module Leaders: Kalliopi Sapountzaki, Costis Chadjimichalis

#### **Disaster management with the use of Geoinformatics** (Optional)

The main aim of the course is to present the use of Geoinformatics (GIS, Remote Sensing, GPS, Automated Cartography) in disaster management, as well as to help postgraduate student acquiring skills through laboratory exercises and presentation of current research trends in this topic. The course includes the following units: Space Earth monitoring systems: Existing systems - Applications in management of naturaltechnological risks - Mapping, monitoring, forecasting, damage assessment with the use of space for earth observation in the context of prevention and mitigation -Applications in the preparation and development of warning systems and response, relief and redesigning - Rating operational capabilities of various data per management phase - Exercises based on the experience of using satellite data of past events as well as on possible scenarios -Introduction to Global Positioning Systems (GPS) -Introduction to Geographic Information Systems. General principles of GIS -Integration, visualization, analysis of geographic data - Examples of GIS use monitoring and disaster assessment -forecasting / simulation models of natural disasters by harnessing GIS - The role of mapping in the management of natural disasters - natural disaster management exercises with the use of GIS software

Module Leaders: Christos Chalkias, Isaak Parcharidis

#### Applied Spatial Analysis (Optional)

The course aims at familiarizing with quantitative methods of spatial data analysis and practical application of these methods. Emphasis is placed on strengthening the skills of the students in using statistical software such as R and GeoDa. This course is a presentation of specific topics of descriptive statistics (exploratory analysis) - Assessment of concentration - dispersion of activities in space, methods of deviation / participation (and statistical variations of) convergence model. Methods of multinomial regression analysis, Non-parametric tests and Special regression issues. It also presents spatial autocorrelation, spatial inequalities and spatial regression methods.

Module Leaders: Stamatis Kalogirou, Alexandra Tragaki

#### Environmental risk regulation and multilevel governance (Optional)

Objectives of this course are: the understanding of regulatory framework and policies relating to environmental risk, the familiarization of students with the notion of risk regulation and its key components such as risk assessment, risk management and risk communication, and the discussion of the interplay between science, policy and law. The module includes the following topics: The concept of risk perception. Competing risk regulation paradigms: the technocratic and the deliberative model. The precautionary principle. The cost-benefit analysis. Trade and environmental

protection: Science and policy in WTO. Representative cases: GMOs, Chemicals, Plant Protection Products, Climate Change, Electromagnetic Fields, Nanotechnology, Bioethics.

Module Leader: Giorgos Balias

# 3<sup>rd</sup> Semester (winter)

**Postgraduate Thesis** (Compulsory)

#### Stream B: EUROPEAN POLICIES, PLANNING AND SPATIAL DEVELOPMENT

#### **1st Semester (winter)**

#### Methods of scientific research in Geography (Compulsory)

The main objective of this module is to enable students to design and implement research projects giving particular emphasis on geographical applications. This objective can be achieved to the extent that students are given the opportunity to develop the following qualities: firstly, to be able to construct research hypotheses and questions on the basis of a theoretical discussion; Secondly, to elaborate further on their research questions as to select the appropriate methods and techniques of quantitative and qualitative research; Thirdly, to collect and analyze quantitative and qualitative data, taking into consideration the particularities of each research field and be able to draw conclusions; Finally, to be in position to combine quantitative and gualitative methods as well as guantitative and gualitative data. The module includes the following topics: Brief presentation of the epistemological principles that lay behind the quantitative and qualitative research methodologies. Presentation and appraisal of the role of theory for pursuing the appropriate research design. Comparing the characteristics of quantitative and qualitative methodologies. Laying the foundations of social science and geographical research. Research design and preparation for empirical research. Basic characteristics of questionnaire design and various strategies for collecting quantitative data. Basic characteristics of the different qualitative methods and the strategies for collecting qualitative data. Analyzing quantitative data with the use of specialized software. Analyzing qualitative data with the use of specialized software. Utilizing mixed methodologies. Developing strategies for combining quantitative and qualitative data. Cartographic illustrations of quantitative and qualitative data.

Module Leaders: Apostolos G. Papadopoulos, Panagiotis Artelaris, George Mavrommatis

#### Planning and Spatial Development: Theories and Practices (Compulsory)

The course has a dual aim. Firstly, to introduce synoptically the basic planning theories and theories of spatial development, with particular emphasis on questions of power and social agency. Secondly, to focus on Europe and Greece. The module includes the following topics: Planning and spatial development are not neutral, technocratic processes, supposedly maximizing choices. Of particular importance is the construction/approach of a planning problem and by whom. There is always a different construction/approach due to conflictual social interests and different scales of power, hence the key political role of planning and spatial development. Europe is a privileged laboratory for the analysis of the above with many interesting applied examples at multiple scales, from the local, urban, regional and interregional scales. Particularly after the 2009 multifaceted European crisis and its devastating effects in the European South, the course will discuss how the wider crisis affected planning theories and spatial development theories and turn them to crisis as well.

#### Module Leader: Costis Hadjimichalis

#### **Regional Development and Policy** (Compulsory)

The aim of regional development is to study the socio-economic development of a region or a group of regions. Regional development differentiates itself from national development in terms of the spatial reference frame. Since the 1980's, there has been a clear shift in interest for regional development, at the expense of national development. This interest is particularly obvious on a European Union level. The emergence of new types of problems and opportunities such as the establishment of the European Common Market, the emergence of supranational organizations, the internationalization of competition and cooperation, not only on a national but also a regional level, have oriented academic debates and policy towards a regional scale. The course is organized around two sections. The first section examines the geography of inequalities in the EU. It studies the evolution over time, shape and characteristics of the economic and social disparities in the EU regions. The discussion will be based on the data drawn from several official EU sources and databanks. The second section investigates the dynamics and limits of the contemporary developmental efforts as proposed by scholars and adopted by the EU in its policies; it also presents a general discussion about the main EU policies, focusing on the human factor and sustainability. Module Leaders: Sofia Skordili, Panagiotis Artelaris

#### Migration policies and migrant flows (Optional)

This module aims at studying the various aspects of the migratory phenomenon in Europe and the developed countries in general. More specifically, it focuses on the analysis of the objectives and measures of the European migration policies as well as on thestudy of migrant flows towards Europe and the developed world as they evolve in recent decades. The study of migrant flows is considered part of the dynamics of globalization and of the changes in the operation of nation-states since the post-war period. The analysis of migration policy offers an important setting for explaining current migrant flows, due to the fact that migration policy shapes and reshapes migration types as well as the various routes that migrants follow in their movement towards Europe and the more developed countries. Special attention is given on the shifts of migration policies aiming at meeting the objectives of receiving countries, of origin countries and of the involved actors in the migration process. A general context is offered looking at migration as a long-term historical phenomenon, whose characteristics keep changing. Description of the basic theories of migration. Conceptualization of the various migration types and definition of migrant categories and dynamics. The demographic dimension of migration and the role of welfare state. Globalization, migration and the challenge of development. Institutional and political aspects of the European migration policy. The European models of social integration of migrants. The 'South European' migration model and its limitations. Description and appraisal of the basic changes in European migration policy in last decades. Asylum policies and refugees. Irregular migration, xenophobia and conflicts in receiving countries. Transnationalism, civil society and the contentious issue of migrant integration. Circular migration and mobility. The recent 'migrant crisis' and future migrant flows.

Module leaders: Apostolos G. Papadopoulos, Alexandra Tragaki, George Mavrommatis

#### Institutions and security policies in European space (Optional)

The objectives of this module are: to give students a grounding in the theory and practice of international security in the contemporary era, to develop in students the ability to think critically and constructively about the key debates in international security studies and to train students to evaluate constructively and analytically the real challenges or policy-choices confronting policymakers. This module examines the various concepts of order and disorder in the pre-Cold War and post-Cold War periods by providing a coherent mixture of theoretical and empirical study-cases in European as well as in international space. The early seminars go through the major theoretical perspectives on security and later seminars discuss some of the key problems those theories try to address. The following seminars critically evaluate the ability of the main theories of Security Studies to analyze international security focusing on different study cases such as diplomacy and foreign policy, humanitarian intervention and the role of NGOs in humanitarian crises, terrorism and other forms of insecurity (i.e. environmental, societal, etc.), migration policy and refugees, borders in a geographical perspective and the 'fortress' of Europe, nationalisms and ethnic conflicts or wars, etc. Module Leader: Georgios Kritikos

## 2<sup>nd</sup> Semester (spring)

#### **Urban Development and Redevelopment Policies** (Compulsory)

Module Leader: P. M. Delladetsimas

#### **Globalisation and the restructuring of the European space** (Compulsory)

Globalisation is a complex phenomenon. It bears a direct impact on economy, society, culture and politics, without however being the only major force driving processes that are under way. The course aims at a critical presentation of concerns and points of dispute crucial to the current debate on globalisation from a geographical point of view and in relation to the European area. During the course we approach the multiple and seemingly contradictory aspects and consequences of globalisation, tackling in particular the issue of economic globalisation. Recent developments in the international regulatory and technological framework are examined, as well as changes in transnational trade and investment flows and in the spatial arrangement of production chains. Such changes are better explained through the evolution of the production and distribution of agrifood products, a field where the global and the local most noticeably intersect.

Module Leader: Sophia Skordili

#### **Development and Restructuring of Rural Europe** (Optional)

This module offers a holistic approach of rural Greece and Europe by taking into consideration the continuing significance of agriculture within a constantly changing economic and social environment. More specifically, this module underlines the significance of demographic, social and economic characteristics for approaching the contemporary rural areas. Special attention is given on the critical appraisal of the industrial agricultural model and the emergence of alternative agricultural models as well as on food sovereignty. Social action is contrasted to the static perception of rural social and economic structure. It analyzes the role of policies for the formation of the contemporary mosaic of rural Europe as well as for the widening of inequalities among the various rural regions. Finally, the need for a management of the commons is recognised, within the context of rural sustainable development and sustainable agriculture. The module includes the following topics: Conceptualizing the notion of rural development. Description of the rural development dynamics in Europe. Analysing the demographics, migration and mobility in rural Greece and Europe. Discussin the role of Common Agricultural Policy (CAP) for maintaining and restructuring agriculture in rural Europe. Appraisal of the evolution of the CAP. The second pillar of the CAP: rural development policy. Spatial inequalities among and within rural regions. Tangible and less tangible factors for rural development and restructuring. Conventional and alternative agriculture. Quality products, local food and community support agriculture (CSA). Food security vs food sovereignty today. Interest groups, NGOs, environmental concerns and new challenges for the spatial planning of rural areas. The issues arising from the management of the commons. Policy networks and multilevel governance in contemporary rural Europe. Social conflicts and social movements in rural areas.

Module Leader: Apostolos G. Papadopoulos

#### Local Sustainable Development: Programs and Social Resistance (Optional)

The basic objective of the module is to elevate the possibilities but also the obstacles encountered by local agencies and populations of specific places in Greece and Europe so as to plan and implement their own social and economic development. The module puts emphasis on local actions and programmes with positive outcome. The module focuses in particular on local social movements which either protect local resources by means of resisting actions, or proceed to positive action in the context of a social economy. Among the aims of the module is to elevate the relationship between local economic development and sustainable development (environmental-economicsocial) in the crisis period and to describe also the possibilities/limitations of social action toward sustainable development at the local level. Post-graduate students have the opportunity to understand problems of Local Development by means of both theoretical and practical teaching material so as to be prepared for their participation in multi-disciplinary teams elaborating Local Development Plans and Programmes. The module includes the following topics: Defining Local Economic and Social Development and relationships with regional and urban development – The notion of Sustainable Development and inherent contradictions – Modern practices of Local Development and spatial division of labour in economic crisis periods - "Botom up" and "Top-down"

development interventions, endogenous and exogenous development, Local Development supporting local environment protection – The concept of Local Sustainable Development versus neo-liberalism, "Agenda 21" and the Aalborg Charter, national and European policies toward Local Development (Local Development Companies, Local Quality and Employment Conventions, cooperation networks, etc) – Local Development and natural resources - Local Self-government, NGOs and Local Governance - Informal economy, local labour markets, risks, uncertainty and resilience in Local Development – Local Development and adaptation to Climate Change – Theories of collective social action, social enterprises, local social movements, social resistance and positive initiatives – The process of elaboration and layout of a Local Development Programme – Examples of successes and failures of LDP.

Module Leaders: Kalliopi Sapountzaki, Costis Chadjimichalis

#### Issues of inequality and segregation in European cities (Optional)

The basic objective of the module is elaboration of issues of social and spatial change in large metropolitan areas following the internationally dominant paradigms of theoretical analysis. The module includes the following topics: Social and spatial changes in European cities under globalization and following the explanatory schemes offered by dominant theoretical paradigms. Focus on metropolitan regions and on the social and spatial impact of the accelerated movement of capital and people, as well as on the ways their regulation is attempted. Reference to data use from relevant quantitative and qualitative research. Reference also to the features of the South European metropolitan space and to its differences from the model of social and spatial patterning of inequality and change at the European core.

Module Leader: Thomas Maloutas

#### Applied Spatial Analysis (Optional)

The course aims at familiarizing with quantitative methods of spatial data analysis and practical application of these methods. Emphasis is placed on strengthening the skills of the students in using statistical software such as R and GeoDa. This course is a presentation of specific topics of descriptive statistics (exploratory analysis) - Assessment of concentration - dispersion of activities in space, methods of deviation / participation (and statistical variations of) convergence model. Methods of multinomial regression analysis, Non-parametric tests and Special regression issues. It also presents spatial autocorrelation, spatial inequalities and spatial regression methods.

Module Leaders: Stamatis Kalogirou, Alexandra Tragaki

#### The Demographic factor in the EU economic and social policy (Optional)

The aim of this course is to sharpen perception about the implications of demographic changes on different economic and social aspects. Students are encouraged to comment on the demographic implications of EU and/or national policies related to labour market and social security issues, social cohesion, migration etc. The opposite relation is also examined: how demographic changes shape relevant policies and alter

priorities. The module includes the following topics: Demography: Methods and tools. Demographic conditions within the EU, regional diversities. Demography and Economy - relevant EU policies. Demographic trends and Labour Market - relevant EU policies. Demographic trends and Education. Demographic trends and Migration -relevant EU policies. Demography and Security. Demographic trends and environmental implications.

Module Leader: Alexandra Tragaki

# **Methods of Regional Analysis with emphasis on Spatial Econometrics** *(Optional)*

The aim of the course is to provide the students with the fundamental tools, i.e. concepts, methods and techniques, to empirically investigate regional and spatial phenomena. In order to achieve this aim, a wide range of statistical and econometric techniques are presented in order to describe, analyze and model spatial data, placing special emphasis on the field of spatial econometrics. To achieve a more thorough knowledge of these techniques, particular attention will be given to real-world applications and data. By the end of the course students should be able to: 1) deeply understand the importance of the methods addressed for the examination of socioeconomic phenomena that have spatial dimension. 2) Identify the core concepts and methods of Regional Analysis and Spatial Econometrics. 3) Employ the appropriate methods and techniques in spatial research problems, interpreting the results and being aware of the limitations. The course contains the following topics: Introduction to Methods of Regional Analysis - Indicators of Regional Specialization/Concentration -Shift-Share and Spatial Shift-Share Analysis - Regional Multipliers - Composite Indicators - Introduction to Econometrics (e.g. Specification of a Linear Model, Cross-Section and Panel Data Analysis, Specification Tests, Variable Selection) - Introduction to Spatial Econometrics (Methods, weight matrices, Specification Tests) - Advanced Topics in Spatial Econometrics (Panel techniques, Regime analysis).

Module Leader: Panagiotis Artelaris

#### Trasnationalism and Human Geography (Optional)

The concept of transnationalism became popular in the 1990s in order to explore the lives of migrants and other diasporic populations, which were supposedly being shared between different geographical areas, regions and countries. Through the passage of time, this concept of transnationalism started to be used in a broader way in order to investigate multiple and simultaneous flows of goods, people, technology, ideologies, identities, images, etc. To some extent, transnationalism became synonymous with the attempt to shed light on ongoing processes of economic, cultural and political globalization. This course seeks to examine the ways in which transnational theory (or the transnational example) penetrated the field of geography, especially the field of human geography, with the aim to interpret the complex, interdependent and contradictory character of the globalizing world of the past three decades. Subsequently, this course is structured in relation to different aspects of human geography and among other things the following topics are investigated: trans-national

economies, global political economy, transnational movements, cross-national identities and communities, inter-ethnic relations and cultures, trans-national policy, globalised civil society etc. The module contains the following topics: Defining the concept of transnationalism. Transnationalism and the human scale. Defining globalization as a two-step process that takes place simultaneously from 'above' and 'bottom'. Network society and network theories. Neoliberalism. Describing the political economy of now. Transnational cities and city networks. Migration, transnational communities and identities. Dual citizenship and transnational sense of belonging. Transnational migrant integration. Off transnational movements and the rise of global civil society. Transnational challenges: Global terrorism. The dialectical image of transnationalism: nationalism and intolerance.

Module Leader: George Mavrommatis

# 3<sup>rd</sup> Semester (winter)

**Postgraduate Thesis** (Compulsory)

## Stream C: GEOINFORMATICS

## 1<sup>st</sup> Semester (winter)

#### Methods of scientific research in Geography (Compulsory)

The main objective of this module is to enable students to design and implement research projects giving particular emphasis on geographical applications. This objective can be achieved to the extent that students are given the opportunity to develop the following qualities: firstly, to be able to construct research hypotheses and questions on the basis of a theoretical discussion; Secondly, to elaborate further on their research questions as to select the appropriate methods and techniques of quantitative and qualitative research; Thirdly, to collect and analyze quantitative and qualitative data, taking into consideration the particularities of each research field and be able to draw conclusions; Finally, to be in position to combine quantitative and gualitative methods as well as guantitative and gualitative data. The module includes the following topics: Brief presentation of the epistemological principles that lay behind the quantitative and qualitative research methodologies. Presentation and appraisal of the role of theory for pursuing the appropriate research design. Comparing the characteristics of quantitative and qualitative methodologies. Laying the foundations of social science and geographical research. Research design and preparation for empirical research. Basic characteristics of questionnaire design and various strategies for collecting quantitative data. Basic characteristics of the different qualitative methods and the strategies for collecting qualitative data. Analyzing quantitative data with the use of specialized software. Analyzing qualitative data with the use of specialized software. Utilizing mixed methodologies. Developing strategies for combining quantitative and qualitative data. Cartographic illustrations of quantitative and qualitative data.

Module Leaders: Apostolos G. Papadopoulos, Panagiotis Artelaris, George Mavrommatis

#### Applied GIS based geographical analysis (Compulsory)

This course implements theoretical and practical skills to analyze spatial phenomena with the use of GIS technology. To achieve this goal a series of exercises aimed at the implementation of theoretical knowledge through practical applications is implemented. After completing the course, the postgraduate students will be able to analyse various types of spatial data and to define modeling strategies and detailed geographic data management processes. Module content: Advances issues on GIS, spatial data models, spatial transformations, sophisticated methods of data entry, advanced visualization and analysis of terrain, identification of spatial patterns, modeling using raster data, Map Algebra, spatial decision support systems and GIS, analytic hierarchy process, cartographic modeling, GIS and network analysis, data visualization as a spatial analysis tool, application development by using GIS software packages.

Module Leader: Christos Chalkias

#### Advanced topics of Remote Sensing (Compulsory)

Knowledgement about the basic processing techniques of satellite images as well as advanced. Image interpretation of true and false color composite images and image-products from advanced processing techniques. **Module content:** The main earth observation systems – Preprocessing of satellite images, radiometric enhancement (histogram enhancement) – Geometric corrections, Georeference – Spatial enhancement (filter applications) – Image transformation (Principal Component Analysis, Tasseled Cap) – Indices (Vegetation indices) – Data fusion – Classification of images.

Module Leader: Isaak Parcharidis

#### **Spatial Databases** (Compulsory)

The course aims to familiarize graduate students (PGs) with spatial databases. During the semester, the PGs prepare a series of laboratory exercises relating to the creation of an ER model and familiarise themselves with Database Management Systems such as MS Access. The module includes the following topics: Databases and Database Management Systems, Design and Implementation of Database Systems, the SQL language, Spatial Databases, Entity / Relationship (ER) Model, Commercial and Open Source Geographic Database Management Systems.

Module Leader: Christos Chalkias

# 2<sup>nd</sup> Semester (spring)

#### **Research in Geoinformatics** (Compulsory)

This course is a seminar in nature and aimed at presentation of advanced research topics related to the subject of Geoinformatics and not taught as independent courses in the graduate program. In this course both faculty members and external lecturers present modern research issues in the area of geographical data analysis with the use of Geoinformatics. Apart from the purely educational nature, the seminar aims additionally to support students in the choice of subject to be drawn up in the 3rd semester of study. Contents: Expert Systems and Classification of Remotely Sensed Images. Advanced Systems of Geo location. Spatial Databases of Moving Objects and Trajectories' Management. Spatial Hydrologic Models. Open Source GIS and Cartography Software. The Geographical Weighted Regression statistical analysis of geographical phenomena. Semantics / Ontologies of Geographical Data. Artificial Neural Networks and applications in Geoinformatics. Cellular Automata in Geography. GIS applications in spatial planning. GIS and Health Geography / Spatial Epidemiology. Landscape analysis/ taxonomy with the use of GeoInformatics.

Module Leader: Christos Chalkias - External Lectures

#### Programming for spatial data analysis (Optional)

The module aims to provide more detailed knowledge in information technology and more specifically in the statistical programming for analyzing spatial data in the degree these are required in the science of geography and geoinformatics. In the theoretical part the concepts of object-oriented programming, a modern statistical programming language, R and its environment RStudio, as well as libraries and tools for GIS and spatial analysis are introduced. The emphasis of software development is on libraries with classes and methods that can manage and analyse geographic data in order for the student to be able to develop the ability to create applications in Geoinformatics. The computer labs aim to allow students to familiarize with the programming language R and developed several applications that analyze and visualize spatial data. Students also develop geographical data mapping code and texts using the documentation language R Markdown.

Module Leader: Stamatis Kalogirou

#### **Geomodeling** (Optional)

This is an introductory course in the fields of numerical methods and the simulation. At the end of the course the student is expected to know basic algebraic array operations, interpolation schemes and new simulation methods. It is also designed to give students fluency in MATLAB, including the mapping toolbox. The course consists of interactive lectures with students mainly doing numerical problems in MATLAB. **Contents:** Introduction to MATLAB. Description of the basic functions and software capabilities. Basic principles and techniques of array algebra. Library functions in MATLAB. User-defined functions. Data visualization. Examples of line graphs, scatter plots, bar plots  $\kappa \alpha$  area graphs. Interpolation methods. Least-square method and spatial interpolation. Gridded fields analysis. Mesh and contour plots. Examples of numerical simulations and principles of mathematical modeling.

Module Leader: Petros Katsafados

#### **Disaster management with the use of Geoinformatics** (Optional)

The main aim of the course is to present the use of Geoinformatics (GIS, Remote Sensing, GPS, Automated Cartography) in disaster management, as well as to help postgraduate student acquiring skills through laboratory exercises and presentation of current research trends in this topic. The course includes the following units: Space Earth monitoring systems: Existing systems - Applications in management of natural-technological risks - Mapping, monitoring, forecasting, damage assessment with the use of space for earth observation in the context of prevention and mitigation - Applications in the preparation and development of warning systems and response, relief and redesigning - Rating operational capabilities of various data per management phase - Exercises based on the experience of using satellite data of past events as well as on possible scenarios - Introduction to Global Positioning Systems (GPS) - Introduction to Geographic Information Systems. General principles of GIS - Integration, visualization, analysis of geographic data - Examples of GIS use monitoring and disaster assessment -forecasting / simulation models of natural disasters by

harnessing GIS - The role of mapping in the management of natural disasters - natural disaster management exercises with the use of GIS software

Module Leaders: Christos Chalkias, Isaak Parcharidis

#### Applied Spatial Analysis (Optional)

The course aims at familiarizing with quantitative methods of spatial data analysis and practical application of these methods. Emphasis is placed on strengthening the skills of the students in using statistical software such as R and GeoDa. This course is a presentation of specific topics of descriptive statistics (exploratory analysis) - Assessment of concentration - dispersion of activities in space, methods of deviation / participation (and statistical variations of) convergence model. Methods of multinomial regression analysis, Non-parametric tests and Special regression issues. It also presents spatial autocorrelation, spatial inequalities and spatial regression methods.

Module Leaders: Stamatis Kalogirou, Alexandra Tragaki

#### Methods of Regional Analysis with emphasis on Spatial Econometrics

#### (Optional)

The aim of the course is to provide the students with the fundamental tools, i.e. concepts, methods and techniques, to empirically investigate regional and spatial phenomena. In order to achieve this aim, a wide range of statistical and econometric techniques are presented in order to describe, analyze and model spatial data, placing special emphasis on the field of spatial econometrics. To achieve a more thorough knowledge of these techniques, particular attention will be given to real-world applications and data. By the end of the course students should be able to: 1) deeply understand the importance of the methods addressed for the examination of socioeconomic phenomena that have spatial dimension. 2) Identify the core concepts and methods of Regional Analysis and Spatial Econometrics. 3) Employ the appropriate methods and techniques in spatial research problems, interpreting the results and being aware of the limitations. The course contains the following topics: Introduction to Methods of Regional Analysis - Indicators of Regional Specialization/Concentration -Shift-Share and Spatial Shift-Share Analysis - Regional Multipliers - Composite Indicators - Introduction to Econometrics (e.g. Specification of a Linear Model, Cross-Section and Panel Data Analysis, Specification Tests, Variable Selection) - Introduction to Spatial Econometrics (Methods, weight matrices, Specification Tests) - Advanced Topics in Spatial Econometrics (Panel techniques, Regime analysis).

Module Leader: Panagiotis Artelaris

# 3<sup>rd</sup> Semester (winter)

**Postgraduate Thesis** (Compulsory)

# Academic Staff

**Panagiotis Artelaris, Lecturer** in Spatial Economic Analysis. He holds a B.Sc in Economic and Regional Development from the Department of Economic and Regional Development, Panteion University of Social and Political Sciences (1999), a M.Sc. from the same Department (2002) and a Ph.D in Regional Economics and Development from the Department of Planning and Regional Development, University of Thessaly (2009). His research interests include Regional Economics, Regional Development and Policy, Economic Geography, Methods of Spatial Economic Analysis.

**George Balias, Assistant Professor** in Environmental Policy. He holds a Bachelor of Law from the Aristotle University of Thessaloniki (1977) and a PhD in Environmental Law from the National and Kapodistrian University of Athens (2008). His research interests focus on Environmental Impact Assessment, Human Rights and Environment, Climate change, GMOs, Chemicals, Waste management, Environmental Liability, Environmental Governance.

**Christos Chalkias, Associate Professor** in Geographic Information Systems and Applied Geography: He holds a Diploma in Geology from the National and Kapodistrian University of Athens (1991) and a PhD in Physical Geography - Geoinformatics from the same University (1996). His research interests include Geographic Information Systems Science, Applied Geography, Spatial analysis, Intification of spatial patterns, Health GIS, Modeling of Natural Disasters.

**Pavlos-Marinos Delladetsimas, Professor** in Spatial and Safety Planning. He holds a Diploma in Architecture from the Universita Degli Studi di Firenze (UDFI) (1978), a Master of Philosophy in Town Planning (MPHIL) from the Bartlett School of Architecture and Planning, University College London (1981) and a PhD in Spatial Planning from the National Technical University of Athens, (1991). His research interests include spatial and safety planning, Social and economic impacts of natural hazards, urban geography.

**Stamatis Kalogirou, Assistant Professor** in Applied Spatial Analysis. He holds a B.Sc. in Informatics, Department of Informatics, Faculty of Sciences, Aristotle University of Thessaloniki, Greece (1998), a MSc in GIS from the University of Leicester, UK (2000) and a PhD in Geography from the University of Newcastle Upon Tyne, UK (2004). His research interests include basic research in spatial analysis and geostatistics, applications of spatial analysis and geocomputation in human geography looking at research questions for informed policy making, applied research using quantitative methods and GIS to issues related to migration, population ageing, health, spatial inequalities of income and quality of life.

**Efthimios Karymbalis, Associate Professor** in Coastal and Fluvial Geomorphology. He holds a BSc. in Geology from the Department of Geology, National and Kapodistrian University of Athens, Greece (1992) and a PhD in Geomorphology from the same University (1996). His research interests focus on Fluvial Geomorphology, Coastal Geomorphology, Palaeogeographic evolution of coastal areas – sea-level fluctuations, Morphotectonics, Natural Hazards (floods, sea-level rise, shoreline erosion), Geomorphological mapping.

**Petros Katsafados, Associate Professor** in Atmosphere and Climate Dynamics. He holds a BSc. in Mathematics, Department of Mathematics, National and Kapodistrian University of Athens, Greece, (1993), a MSc in Environmental Physics, Department of Physics, National and Kapodistrian University of Athens, Greece, (1996) and a PhD in Atmospheric Dynamics and Modeling, from the same University (2003). His research interests include Numerical weather prediction and data assimilation systems, Regional climate and air-sea-land interactions, Operational weather prediction, Integrated systems for the production and dissemination of environmental and climatic information.

**George Kritikos, Associate Professor** in Historical Geography of Modern Times. He holds a B.A. in history from the department of History and Archaeology at the National and Kapodistrian University of Athens (1990), a MPhil in European Studies at the Department of International Relations and History at Cambridge University, G. Britain (1992) and a PhD, Department of History and Civilization, European University Institute in Florence (2002). His research interests focus on Nations and Nation-states in historical geography, Individual and collective identities in space, Refugees - migrants, European space: borders, institutions and politics of security.

**Constantia-Aikaterini Lazaridi**, **Professor** in Geography with emphasis on Environmental Management and Technology. She holds a BA in Physics, Department of Physics, National and Kapodistrian University of Athens, (1989), a M.Sc. in Environmental Protection Technologies, Department of Fuel & Energy, University of Leeds, UK, (1991) and a Ph.D. in Civil and Environmental Engineering, School of Civil Engineering, University of Leeds, UK, (1998). Her research interests include Sustainable waste management and resource efficiency, Extended Producer Responsibility (EPR) – Waste prevention – Valorisation of organic waste and residues – Composting, Industrial Ecology, Environmental risks and environmental security.

**Thomas Maloutas**, **Professor** in Social Geography. He holds a Diploma in Architecture. École Spéciale d'Architecture, Paris (1977), a Diplôme d'Études Approfondies in Geography. Université de Paris-X-Nanterre (1978) and a PhD in Geography (Geography of the environment and development) from the same University (1982). His research interests focus on Social and spatial changes in world cities, Urban segregation (social and ethnoracial), Housing and welfare systems,

Urbanization and social mobility, Comparative urbanization models with a focus on Southern Europe, Sociospatial data management and analysis.

**George Mavrommatis, Lecturer** in Political Geography. He holds a BA Honours Degree in Economics, Faculty of Law, Economic and Political Sciences, National and Kapodistrian University of Athens (1994), a MA in Communication, Culture and Society, Goldsmiths College, University of London, U.K (1998) and a PhD degree in Social Sciences, Goldsmiths College, University of London, U.K. (2003). His research interests include Migration, migration policy, migrant integration, contemporary geopolitics, discourse analysis, ethnography.

**Apostolos Papadopoulos, Professor** in Rural Sociology and Geography. He holds a B.Sc. in Sociology, Department of Sociology, Panteion University of Social and Political Sciences (Athens, Greece) (1987), a M.Sc. (Econ) in Sociology, Department of Sociology, London School of Economics and Political Science, (1989) and a D.Phil. in Geography, Department of Geography, University of Sussex, (United Kingdom) (1994). His research interests include Rural Sociology on Greece and Southern Europe, Impact of international immigration on rural areas, Immigrants, social integration and civil society, Geographies of migration.

**Isaak Parcharidis, Associate Professor** in Remote Sensing. He holds a BSc in Geogical Sciences, University of Parma, Italy (1984) and a PhD in Remote Sensing from the Agricultural University of Athens, (1994). His research interests focus on synthetic aperture radar interferometry and very high spatial resolution remotely sensing data for natural disaster assessment, mitigation and monitoring.

**Kosmas Pavlopoulos, Professor** in Environmental Geomorphology. He holds a BSc. in Geology, Department of Geology, National and Kapodistrian University of Athens (1986) and a PhD in Geomorphology, from the same University (1992). His research interests focus on Geomorphology, Engineering Geomorphology, Quaternary Geology, Geoarchaeology, Paleogeography, Hydrogeology, Engineering Geology and Natural hazards.

**Kalliopi Sapountzaki**, **Professor** in Applied Geography with emphasis in Spatial Planning and Protection from Natural Disasters. She holds a Diploma in Architecture from the National Technical University of Athens, (1980), a Master of Arts (MA) in Urban Design from the University of Manchester, (1981) and a PhD in Management of Natural Disasters and Spatial Planning from the National Technical University of Athens, (1990). Her research interests include Geographies of Risk and Vulnerability with respect to Seismic Disasters, Forest Fires and other versions of Natural Disasters, Management of Vulnerability, Resilience and Risk, Risk Mitigation and its Integration in Urban and Regional Planning, Sustainable Development and Spatial Planning, Territorial Governance, Risk Governance, Urban Governance.

**Sofia Skordili, Associate Professor** in Industrial Geography. She holds a BA in Business Administration from the Athens University of Economics (1982), a MSc in Regional Development from Panteion University of Athens (1988) and a PhD in Economic Geography from the Department of Urban and Regional Planning and Development, Aristotle University of Thessaloniki (2000). Her research Interests focus on Location and spatial configuration of economic activity, Strategies of spatial development of TNCs, Geography of globalized agro-food networks, Economic Geography of Retail, food safety and food security.

**Emmanuel Stefanakis, Associate Professor** in Geographic Information Systems, Geographic and Cartographic Database Systems. He holds a Diploma from the School of Rural and Surveying Engineering of the National Technical University of Athens (1992), a M.Sc.E. in Geomatics, University of New Brunswick, Canada, Dept. of Geodesy and Geomatics Engineering (former Department of Surveying Engineering) (1994) and a Ph.D. in Informatics, National Technical University of Athens, School of Electrical and Computer Engineering (1997). His research Interests focus on Web Mapping and Web Mapping Services, Spatial Data Infrastructures, Geovisualization and Cartography, Interoperability of Geographic Data - Systems and Services, Spatial Analysis Methods and Algorithms, Spatio-temporal Knowledge Discovery and Data Mining, Spatio-temporal Indexing and Optimization Issues, Education in Geomatics and Geomatics, Assisted Education.

**Alexandra Tragaki, Associate Professor** in Demography Economics. She holds a B.Sc in Applied Mathematics from the University of Athens, (1992), a M.Sc. (D.E.A.) in Demography Economics from the Institute of Political Studies in Paris, (1993) and a Ph.D. in Economics, field Demography Economics, from the Institute of Political Sciences (Institut d'Etudes Politiques) in Paris (Sciences Po), (1997). Her research interests include Demography, Ageing and Economic Impacts, Migration, Social Security Issues, Regional Disparities, Economic Policy, Statistical Analysis.

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