

## **DELIBERATION - Collegiate PPG Stricto Sensu N° 30/2017**

### **Restructures the Postgraduate Program in Geography (Master's and Doctorate).**

CONSIDERING the request of the Program Coordination, according to process No. 21432.12D17;

CONSIDERING the competence assigned to the College of Graduate Programs Stricto sensu, through process No. 11318/2016, which modified the regulations of the Graduate Chamber:

THE ASSEMBLY OF STRICTO SENSU POSTGRADUATE PROGRAMS, in a session dated November 14, 2017, approved the following Deliberation:

Art. 1st The Graduate Program in Geography (Master's and Doctorate) with a concentration area in Socio-environmental Dynamics is hereby restructured, effective as of the 1st semester of 2018.

Art. 2nd The expected duration for Master's and Doctorate courses is 4 (four) and 8 (eight) full-time academic periods, with a minimum of 2 (two) and 4 (four) and a maximum of 6 (six) and 10 (ten) periods, respectively.

Art. 3rd To conclude the Master's and Doctorate levels, the student must complete the workload and the credits distributed in the manner described in the paragraphs:

§ 1 The Master's student must complete 1,050 (one thousand and fifty) hours corresponding to 70 (seventy) credits, distributed as follows:

- a) 10 (ten) credits in compulsory subjects;
- b) At least 16 (sixteen) credits in optional subjects;
- c) Forty-four (44) credits in a Master's Dissertation.

§ 2 The doctoral student must take 2,610 (two thousand six hundred and ten) credits, corresponding to 174 (one hundred and seventy-four) credits, distributed as follows:

- a) 10 (ten) credits in compulsory subjects;
- b) At least twenty-four (24) credits in optional subjects;
- c) One hundred and forty (140) credits in Thesis.

§ 3 The Master's student who receives a scholarship must fulfill 2 (two) credits referred to the Teaching Internship at Graduation, these credits being able to be computed by the scholarship recipient or non-scholarship student as credits in elective subjects.

§ 4 The doctoral student who receives a scholarship must take four (4) credits related to the Graduation Teaching Internship, and said credits may be computed by the scholarship recipient or non-scholarship recipient as credits for elective subjects.

Art. 4th Students who have not graduated in Geography must take graduation courses as a leveling course, in the event that the counselor and the Program Coordinating Commission indicate such a need, taking them according to the specificity indicated by the counselor and under the supervision of the coordination of the program, and it is prohibited to count them as credits and dispose of them in the academic record of the Master's and Doctorate in Geography.

Art. 5th The Program will obey the following curricular organization:

**a) Mandatory subjects**

2GEO436	Method in Geography: categories, theories, concepts and spatial practices	4 credits	60 hours	M/D
2GEO437	Scientific research and theoretical-methodological perspective in Socio-environmental Dynamics	4 credits	60 hours	M/D
2GEO438	Investigation Seminars I	2 credits	30 hours	M
2GEO439	Investigation Seminars II	2 credits	30 hours	D

**b) Optional Subjects**

2GEO440	Environmental hidrogeography	4 credits	60 hours	M/D
2GEO441	Theoretical perspectives on the Built Environment and Cities	4 credits	60 hours	M/D
2GEO442	Climatology and atmospheric contamination in urban centers	4 credits	60 hours	M/D
2GEO443	Geoprocessing and geotechnologies applied to geographic sciences	4 credits	60 hours	M/D
2GEO444	Formative Processes of Politics, Philosophical Perspectives and Training for Teaching in Higher Education	4 credits	60 hours	M/D
2GEO445	CAD georeferencing in digital cartographic generation	4 credits	60 hours	M/D
2GEO446	Environmental geomorphology	4 credits	60 hours	M/D
2GEO291	Geography and Turism	4 credits	60 hours	M/D
2GEO335	Geography, the environment and environmental risks	4 credits	60 hours	M/D
2ARQ167	Cultural landscape	4 credits	60 hours	M/D
2GEO447	Pedology applied to Geography	4 credits	60 hours	M/D
2GEO298	Urban and regional planning	4 credits	60 hours	M/D
2GEO448	Underground water planning	4 credits	60 hours	M/D
2GEO449	Agrarial Issue in Brazil	4 credits	60 hours	M/D
2GEO302 to 2GEO330	Special Topics in Geography	Variable credits	-	M/D
2GEO451 to 2GEO520	Special Topics in Geography	Variable credits	-	M/D
2GEO450	Special activities I / Scientific Publication	4 credits	60 hours	M/D
2GEO332	Special activities II / Extension Program	2 credits	30 hours	M/D
2GEO361	Soil usage and environmental impact	4 credits	60 hours	M/D
2GEO362	Physical geography and environmental education	4 credits	60 hours	M/D

**c) Masters Degree Essay**

2GEO335	Essay I	11 credits	165 hours	M
2GEO336	Essay II	11 credits	165 hours	M
2GEO337	Essay III	11 credits	165 hours	M
2GEO338	Essay IV	11 credits	165 hours	M
2ARQ168	Essay I	11 credits	165 hours	M
2ARQ169	Essay II	11 credits	165 hours	M
2ARQ170	Essay III	11 credits	165 hours	M
2ARQ171	Essay IV	11 credits	165 hours	M

**d) Doctorate Thesis**

2GEO339	Thesis I	10 credits	150 hours	D
2GEO340	Thesis II	10 credits	150 hours	D
2GEO341	Thesis III	10 credits	150 hours	D
2GEO342	Thesis IV	10 credits	150 hours	D
2GEO343	Thesis V	25 credits	375 hours	D
2GEO344	Thesis VI	25 credits	375 hours	D
2GEO345	Thesis VII	25 credits	375 hours	D
2GEO346	Thesis VIII	25 credits	375 hours	D
2ARQ172	Thesis I	10 credits	150 hours	D
2ARQ173	Thesis II	10 credits	150 hours	D
2ARQ174	Thesis III	10 credits	150 hours	D
2ARQ175	Thesis IV	10 credits	150 hours	D
2ARQ176	Thesis V	25 credits	375 hours	D
2ARQ177	Thesis VI	25 credits	375 hours	D
2ARQ178	Thesis VII	25 credits	375 hours	D
2ARQ179	Thesis VIII	25 credits	375 hours	D

**e) TEACHING INTERNSHIP (MANDATORY FOR INTERNS)**

2GEO347	Teaching Internship in graduation I	2 credits	30 hours	M/D
2GEO348	Teaching Internship in graduation II	2 credits	30 hours	D

Art. 6th Of the 26 (twenty-six) credits in subjects of Master's programs, up to 4 (four) credits of subjects from other Postgraduate Programs recommended by Capes and approved by the Program Coordinating Committee may be validated.

Art. 7th Of the 3-4 (thirty-four) credits in Doctorate subjects, credits from subjects taken in Master's Programs in Geography or other Stricto Sensu Graduate Programs with national validity may be validated, provided they are approved by the Committee Program coordinator.

Art. 8th Graduates in Geography and related areas may apply to the Program.

Art. 9th The selection of the candidates will be carried out by a Selection Committee established by the Program Coordinating Commission and will consist of qualifying tests, namely: written test, analysis of the curriculum vitae and interview, and qualifying tests to verify the level of competence in the foreign language and the research project.

Art. 10th The evaluation of the performance and the verification of the frequency will obey the norms established in the Stricto Sensu Regulation of the Graduate Program.

Art. 11th The student regularly enrolled in the Master's program may request a change of level to the Doctorate level within a period of up to 18 (eighteen) months, by means of a formal request from the counselor to the Program Coordinating Commission and as long as he attends to the requirements of the Program Regulations and CAPES/MEC or CNPq in the case of scholarship holders.

Art. 12th The outlines of the disciplines that make up the curricular organization appear in the attachment of this Resolution.

Art. 13th The Graduate Program in Geography will form part of the Stricto Sensu Graduate Programs Association and its academic control will be centralized in the Research and Graduate Prodean.

Art. 14th This Resolution will enter into force on the date of its publication, being repealed all the provisions that oppose it.

November 14th, 2017

**Profa. Dra. Maria de Fátima Guimarães**  
Coordinator of the College of Graduate  
Stricto sensu Programs

## **DELIBERATION ATTACHMENT - Collegiate PPG Stricto Sensu N° 30/2017**

### **Method in Geography: categories, theories, concepts and spatial practices**

The relationship between Geography and Philosophy, through concepts, categories and geographical theories. Space and Time in Geography. Theory and concepts in the dynamics of the landscape and land use, Preparation of bibliographic review of the dissertation / thesis.

### **Investigación científica y perspectiva teórico-metodológica en Dinámicas Socioambientales.**

Theoretical and methodological approaches to Geography. Geography and conceptions of society and nature. Brazilian geography and contemporary scientific research trends. Research techniques in approaches. Sociospatial dynamics and geoenvironmental dynamics. Elaboration of thematic material and methods of the dissertation/thesis.

### **Investigation seminars I**

Presentation and discussion of topics related to Geography.

### **Investigation seminars II**

Presentation and discussion of topics related to Geography

### **Environmental hidrogeography**

Environmental hidrogeography and hydrological cycle. Rivers and hydrographic basins. Hydraulic balance and drainage basins. Analysis of methods for environmental and fluvial studies. Hydrographic basins and proposal of alternatives for planning and environmental management. Impact of human activities on surface water resources.

### **Theoretical perspectives on the Built Environment and Cities**

Built Environment and Cities from different theoretical perspectives. Jane Jacobs. David Harvey and Milton Santos. Urban planning, built environment and determinants of urban vitality. Spatial configuration of the built environment and capital accumulation. Territorial logic and capitalism. Incomplete modernization, division of labor, urbanization and cities in the countries of the South. Built environment, sociodiversity and urban economy circuits.

### **Climatology and atmospheric contamination in urban centers**

Vertical thermal structure of the atmosphere. Boundary layer above the urban canopy. Temporal evolution and main characteristics, formation of urban heat islands (ICU). Urban morphological characteristics and meteorological conditions that favor the formation of ICU. Spatiotemporal structure of the ICU. Radiation and energy balance on urban surfaces. Changes in energy balance compared to natural sites. Main air pollutants present in urban environments and their sources. Characteristics of the particles and gases present in urban environments. Lifetime of atmospheric pollutants, deformation and destruction processes. Main indicators of urban air pollution levels. Diurnal and seasonal cycles of atmospheric pollutants. Atmospheric conditions that favor the dispersion of pollutants in urban canyons. Impact of pollutants on human health.

### **Geoprocessing and geotechnologies applied to geographic sciences**

Geoprocessing and Geotechnologies: Orbital Remote Sensing and Geographic Information System (GIS). Applications of Geoprocessing and Remote Sensing in environmental areas, public sector and other areas of geographic science

### **Formative Processes of Politics, Philosophical Perspectives and Training for Teaching in Higher Education**

Politics, philosophical perspectives and constitution of the teaching identity. Epistemology of practice and pedagogical aspects of teaching in higher education. Contemporary management trends, principles of curricular organization and foundations for the exercise of teaching professionalism.

### **CAD georeferencing in digital cartographic generation**

Installation of AutoCAD Map 3D Raster Design Educativo (free software). Introduction to AutoCAD. Basic commands. Main advanced commands. Increase in plans, letters and scanned maps. Scale application. Remove distortions after scanning. Merge maps. Use of old maps, charts and plans in new projects. Printing and plotting. Interface with Geographic Information Systems. Georeferencing: Preparation of thematic maps; insertion of three-dimensional data (level curves). Interface between Google Earth Pro and assisted design software. Manipulation of images obtained by unmanned aerial vehicles (UAV).

### **Environmental geomorphology**

Environmental geomorphology: Current geomorphological processes and evolution of slopes. Anthropogenic actions to modify the landscape. Morphodynamic processes and environmental changes. Geotechnologies and environmental geomorphology.

### **Geography and Tourism**

Diversification of tourism in geographic space. Current trends in tourism: practices and conceptual discussions. International, national, state, regional and local scale of tourism planning and management, institutions and regulatory actions. Production of tourist territories. Study of potentialities for tourism and transformation of potentialities into tourist resources. Positive and negative impacts of tourist activity and social and environmental problems.

### **Geography, the environment and environmental risks**

Geological processes in the construction of natural domains. Main geological phenomena and their interactive effects of great geogenetic and technogenetic impact on terrestrial spheres. Man as a geological agent (interaction/atmosphere, hydrosphere, biosphere and pedosphere). Processes of inorganic substances in air, soil, water and sediments of hydrographic basins, as natural and anthropogenic sources in the generation of urban and rural impacts. Notions of toxicology and environmental risk analysis including collective health. Planning the occupation of the physical environment minimizing the economic and social consequences.

### **Cultural landscape**

Landscape concepts. Character of the landscape. Landscape inventory, analysis and evaluation methods. Landscape conservation and protection.

### **Pedology applied to Geography**

Soil concept. Histories of Pedology. Pedogenesis: Soil Formation Factors and Processes and their implications in the Landscape. Mineralogy of Tropical Soils. Soil Morphology. Soil Classification. Soil Geography. Study of the soil in the field: morphology and characteristics of the profile.

### **Urban and regional planning**

Policies and intervention plans in the territory that govern the appropriation and territorial reconfiguration. Planning and socio-spatial inequalities with the international division of labor in socio-spatial contexts (national-regional, international-national). Public and private in urban and regional planning and management. Participation of society in public policies. Three interrelated issues: political and technical orientation of planning; national-regional inequality; urban interventions and management.

### **Underground water planning**

Hydrological cycle: Precipitation. Infiltration. Watersheds. Groundwater. Types of aquifers. Groundwater flow. Appearance of groundwater. Superficial evacuation. Aspects of recharging. Protection of aquifers. Flood control. urban drainage. Integrated management of hydrographic basins in the province of Paraná.

### **Agrarian Issue in Brazil**

Theory and methodology in Agrarian Geography. Agriculture and Industry in the reordering of the Brazilian territory. Agrarian reform and rural social movements with an emphasis on the north of Paraná.

### **Special Topics in Geography**

Contemporary sociospatial and geoenvironmental studies: research interlocutions.

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### **Special activities I – Scientific Publication**

Granting of credits for the publication of a scientific article in a journal classified as a minimum B2 by CAPES, or with an IMPACT FACTOR GREATER THAN 0.1 ON THE SCIENCE WEB, not considering, for these purposes, the articles required as part of the requirements for obtaining a Master's or Doctor's degree.

### **Special activities II – Extension Program**

Granting of credits for carrying out extension activities such as courses, conferences, field days or similar, as a speaker, lecturer, organizer or equivalent to these titles, and as a student of the Graduate Program in Geography, with a minimum study load 16 hours.

### **Soil usage and environmental impact**

Land use planning. Environmental impacts derived from the use of urban and rural land. Integrated management of soil and water in micro-watersheds. Environmental impact assessment. case studies.

### **Physical geography and environmental education**

Physical geography, school and environmental education. Methods and teaching techniques of environmental education. Teaching practices of formal and non-formal environmental education. Historical aspects and legislation on environmental education.

#### **Essay I**

Adequacy of the research project. Bibliographic review. Preparation of the bibliographic review of the master's dissertation.

#### **Essay II**

Definition and elaboration of the material and methods of the master's dissertation.

#### **Essay III**

Drafting of the report and presentation of the qualifying exam.

#### **Essay IV**

Writing and defense of the Master's essay.

#### **Essay I**

Adequacy of the research project. Bibliographic study. Preparation of a bibliographic review of the Master's essay.

#### **Essay II**

Definition and elaboration of the material and methods of the Master's essay.

#### **Essay III**

Drafting of the report and presentation of the qualifying exam.

#### **Essay IV**

Writing and defense of the Master's essay.

#### **Thesis I**

Adequacy of the research project. Bibliographic review. Preparation of the bibliographic review of the doctoral thesis.

#### **Thesis II**

Definition and elaboration of doctoral thesis.

#### **Thesis III**

Methodology for the elaboration of the Qualification Report of the doctoral thesis

#### **Thesis IV**

Bibliographic review. Preparation of the revision of the doctoral thesis.

#### **Thesis V**

Bibliographic review. Preparation of the revision of the doctoral thesis

#### **Thesis VI**

Elaboración de la tesis doctoral.



**Thesis VII**

Elaboration of Doctoral Thesis.

**Thesis VIII**

Elaboration of Doctoral Thesis.

**Thesis I**

Adequacy of the research project. Bibliographic review. Preparation of the bibliographic review of the doctoral thesis.

**Thesis II**

Methodology for the elaboration of the Qualification Report of the doctoral thesis.

**Thesis III**

Methodology for the elaboration of the Qualification Report of the doctoral thesis.

**Thesis IV**

Bibliographic review. Preparation of the revision of the doctoral thesis.

**Thesis V**

Bibliographic review. Preparation of the bibliographic review of the doctoral thesis.

**Thesis VI**

Elaboration of Doctoral Thesis.

**Thesis VII**

Elaboration of Doctoral Thesis.

**Thesis VIII**

Elaboration of Doctoral Thesis.

**Teaching Internship in graduation**

Tutored participation in practical and theoretical classes and complementary academic activities of the Degree. Training of students in scientific initiation. Other related activities at the discretion and supervision of the counselor and the Program Coordinating Committee.