<table>
<thead>
<tr>
<th>Program description</th>
<th>p. 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure of the academic calendar</td>
<td>p. 5</td>
</tr>
<tr>
<td>Disciplinary courses</td>
<td>p. 6</td>
</tr>
<tr>
<td>Regional Science</td>
<td></td>
</tr>
<tr>
<td>Economic Geography</td>
<td></td>
</tr>
<tr>
<td>Critical approaches to the City</td>
<td></td>
</tr>
<tr>
<td>Urban Planning</td>
<td></td>
</tr>
<tr>
<td>Principles of Public Policy</td>
<td></td>
</tr>
<tr>
<td>Methodological courses</td>
<td>p. 9</td>
</tr>
<tr>
<td>Introductory Quantitative Research Methods</td>
<td></td>
</tr>
<tr>
<td>Introductory Qualitative Research Methods</td>
<td></td>
</tr>
<tr>
<td>Research Papers: From Design to Publication</td>
<td></td>
</tr>
<tr>
<td>Spatial Econometrics</td>
<td></td>
</tr>
<tr>
<td>Mixed Methods</td>
<td></td>
</tr>
<tr>
<td>Advanced Quantitative Research Methods</td>
<td></td>
</tr>
<tr>
<td>Visualizing Data, Theory and Praxis</td>
<td></td>
</tr>
<tr>
<td>Methods of Geographical Analysis</td>
<td></td>
</tr>
<tr>
<td>Complex Network Analysis</td>
<td></td>
</tr>
<tr>
<td>Policy Evaluation</td>
<td></td>
</tr>
<tr>
<td>Seminars</td>
<td>p. 14</td>
</tr>
<tr>
<td>Faculty advisors</td>
<td>p. 14</td>
</tr>
</tbody>
</table>
Rules for progression
- First year requirements
- Second year: requirements and doctoral candidacy examination
- Third year: requirements and doctoral candidacy examination
- Fourth year: Final exam: thesis defense

Requirements of the Ph.D. Thesis
- Paper collection
- Monograph

Research ethics and plagiarism

International mobility

Research Budget

The GSSI website and communication

Teaching Committee
The Doctoral Program in Urban Studies and Regional Science is a four-years scientific program leading to the degree of Doctor of Philosophy (Ph.D.), the highest degree awarded by universities in the Italian education system. The goal of the program is to train doctors capable of doing independent and original research that contributes to the wellbeing of people and the society, and that enhance our understanding of relevant problems in the fields of urban studies and regional science.

The program depends on the Social Sciences Unit of the Gran Sasso Science Institute (GSSI), a school of advanced studies and a center for research in the areas of Social Sciences, Physics, Mathematics and Computer Science, located in L'Aquila, the capital city of the Abruzzo Region in Central Italy.

The Doctoral Program in Urban Studies and Regional Science is structured around three main elements: disciplinary courses, methodology courses and seminars.

Disciplinary courses are related to the main disciplinary fields of the doctoral programme; they aim at providing all the students, regardless their background, with a basic knowledge in these fields. Methodology courses refers to fundamental qualitative and quantitative research methods. Seminars concern specific advanced research topics and projects.

Some of these activities are compulsory, some others are optional (see following sections). Proof of attendance can be required (e.g. by signing the attendance sheet circulated in class). For lectures, seminars and training session, a syllabus will be circulated on the first day of class. At-home assignments will be given at the discretion of the lecturers.

Students will have access to the online academic calendar, where the schedule of all academic activities will be posted. New activities could be added during the year. Hence students are required to check the calendar periodically.

During the academic year, PhD candidates are required to stay at the GSSI from Monday to Friday, with the exception of Italian feast days and academic breaks. There are three breaks during the 2018-2019 academic year:

- The Winter break runs from December 17th, 2018 to January 13th, 2019;
- The Spring break runs from April 18th to May 12th, 2019;
- The Summer break runs from July 15th to September 8th, 2019.
Disciplinary courses

Regional Science

The Regional Science coursework provides students with a basic understanding of the main theories and facts about the social and economic organization of regions, regional growth dynamics and the rationale behind regional development policies. The main questions addressed by the teaching core on Regional Science are the determinants of the location decisions of firms and industries; the drivers of inter-regional migration and the consequences of factors’ mobility for regional growth and regional inequality.

The course is structured around three main units:
- The location and agglomeration of people and economic activities
- The functioning and consequences of interregional migration
- Theories of regional growth and development, and regional policy options.

For the academic year 2018/19, the course will include 20 contact hours taught by Professor Alessandra Faggian (course convener) and Dr. Marco Modica. The course is compulsory.

Economic Geography

Why do some territories and regions perform better than others in terms of economic growth and development? How can local and regional development policies foster economic activity and socio-economic development in lagging areas? The Economic Geography coursework will provide students with an in-depth understanding of the determinants of spatial economic disparities and of the evolution of the attendant geographic perspective, examining the main theories and approaches to local and regional economic development. The final part of the course will focus on the regional development policy of the European Union, illustrating its rationale and discussing its evaluation and results. The last lesson will be devoted to a debate exercise: students will be divided into two groups defending contrasting policy positions on a pre-established topic.

The course will include 20 contact hours taught by the course convener, Dr. Giulia Urso, and some faculty members (Dr. Alessandro Crociata and Dr. Gloria Cicerone). Seminars with international speakers are also an integral component of the Economic Geography course. The course is compulsory.
The ‘Critical approaches to the City’ course aims to introduce students to key theoretical foundations and to the empirical practice of qualitative research approaches to the study of the city. While discussing the tradition and prevailing contemporary developments in urban theory ranging from urban sociology to urban geography, the course will discuss a selection of relevant research topics such as housing, neighbourhoods, urban movements. Using a critical lens, scholars will address each research topic and the surrounding scientific debates. The focus will be on scholarship which employs qualitative methodology. The course will include 20 contact hours taught by the course coordinator (Dr. Alessandro Coppola) with lectures by Dr. Audrey Lumley-Sapanski and Dr. Margherita Grazioli. The structure is a series of reading seminars. Students will be invited to read and present assigned readings that will be discussed collectively in class. A final session, taught by Prof. Alberto Vanolo (University of Turin), will discuss the concepts, topics and research addressed during the class given recent scientific developments in the broad field of the critical approaches to the study of cities. The course is compulsory.

The teaching core on urban planning explores regulatory, institutional, social and ethical aspects of spatial planning. The course covers main aspects of both planning theory and practice. In particular, the course is devoted to the investigation of the complex nexus between technical knowledge and political knowledge in planning, and of the connection among spatial regulation, power and social regulation lato sensu. Several historical and contemporary case studies are explored at this aim. The course will include 20 contact hours taught by the course convener (Dr. Francesco Chiodelli), plus a seminar by Dr. Jonathan Rokem (UCL, London). Students will be invited to read and present assigned readings that will be discussed collectively in class. The course is compulsory.
This course introduces the key approaches to the analysis of public policy and seeks to encourage a critical and comparative approach to the study of trends in contemporary public policy. Specifically, in this course, students will consider how and why public policies emerge, the role of citizens and organized interests in the formulation of public policy, why things go wrong in public policy, the challenges that face policy-makers in handling scientific evidence and regulating societal and economic risks. The course will encompass topics such as agenda-setting, public opinion, science, risk regulation and trends in public management. It will be organised around the following series of overarching questions:

- What is public policy?
- Where do policies come from?
- How is policy made at the front line by officials?
- How do policy-makers listen to citizens?

The course will include 10 contact hours taught by the course convener (Dr. Paolo Spada). The course is optional.
Introductory Quantitative Research Methods is a course mainly aimed at students with no prior knowledge of statistics. The course provides basic statistical concepts and methods, emphasizing the principles of data collection and analysis rather than theory. Practical exercises are an integral component of the course and are intended at getting the students familiar with the use of a popular statistical package (Stata).

Topics to be addressed in the introductory quantitative methods course include:
- Graphical and numerical summaries to describe the distribution of a variable and the relationship between two variables
- Data collection and management
- Concepts of probability and probability distribution
- Statistical inference and hypotheses testing
- The univariate and multivariate linear regression models

The course will include 20 contact hours taught by the course conveners (Dr. Davide Luca and Dr. Félix Modrego). The course is compulsory.

Introductory Qualitative Research Methods introduces students to the basic theoretical and practical elements of qualitative research applied to Social Sciences. The course has a strong focus on applied methodologies, and touches the following topics: theoretical orientations and traditions in qualitative research; qualitative research applications; qualitative research design; the nature of qualitative data collection: sampling strategies, fieldwork strategies, participant observation, interviews, focus groups; surveys: how to construct questionnaires and qualitatively assess quantitative data.

The course will include 20 contact hours, taught by the course convener Dr. Maria Giulia Pezzi, and will include several class exercises. At the end of the course, students are invited to present an assigned research project that will be discussed collectively in class. The course is compulsory.
Research Papers: From Design to Publication

This course presents the academic publishing journey from structuring the paper, designing a research question, and core structural components (methodological, empirical, theoretical), to the use of databases for bibliographic searches and the selection of “the right” journal for submission, to academic paper drafting and, finally, to addressing journal editors and referees. Focus will be on the distinctive character of a research paper, highlighting the differences between academic research and other typologies like policy reports and monographies. Students will receive an introduction into writing for an international journal, focusing on standards and requirements. Secondly, the course will explore how to utilize tools to build a robust and well-focused literature review, suggesting strategies to find useful and relevant references. Thirdly, the course will explain the academic journal process, including an overview of the complete double-blinded peer review process. Academic ethics, as well as basic copyright issues to be considered when submitting papers, will be introduced. The course will include 10 contact hours taught by the course convener (Dr. Cecilia Pasquinelli). The course is optional.

Spatial Econometrics

Spatial econometrics deals with methods to model spatial data considering spatial interaction (spillover) effects and spatial heterogeneity. The course aims at introducing the basic concepts and techniques of spatial statistics and econometrics, along with the main issues posed by the statistical treatment of geo-referenced data and by the construction, estimation and interpretation of spatial econometric models. Students will gain an up-to-date and accessible overview of the relevant theory as well as exposure to empirical applications of spatial econometric models in economics. The course will include 10 contact hours taught by the course convener (Prof. Roberto Basile, University of L’Aquila). The course is optional.
The intensive course Mixed Methods introduces students to the theoretical and practical elements of qualitative research applied to social sciences, in a mixed methods perspective. The course has a strong focus on applied methodologies, and touches the following topics: applications of qualitative research methodologies in social sciences; netnography: understanding social interaction in contemporary digital communications contexts; content analysis: texts, online resources, videos and images; software supporting qualitative and mixed methods analysis: NVIVO.

The course will include 10 contact hours, taught by the course convener Dr. Maria Giulia Pezzi, along with Dr. Gabriella Punziano (Università degli Studi di Napoli Federico II), and will include several class exercises. The course is optional.

This course will provide students with an overview of the different disciplinary traditions and theoretical underpinnings of quantitative research. It will train students in a range of core methods relevant to the social sciences sub-disciplines, including an appraisal of their respective strengths and weaknesses, with a focus on the challenges of data analysis. Students would be able to grasp the relevant knowledge and theory, and develop research skills as detailed below:

**Knowledge and Theory.** Understand the assumptions behind statistical techniques; Ability to select and apply appropriate statistical techniques for testing hypotheses; Familiar with a range of statistical techniques and ability to choose and implement appropriate statistical techniques for research; Ability to interpret statistical outputs and think through the meaning and implications of statistical findings.

**Research Skills.** Ability to carry out statistical analyses; Ability to use STATA to record and program statistical analysis; Ability to manage and analyze large cross-sectional survey datasets; Ability to generate, interpret and present statistics and charts to describe the distributional characteristics of variables; Ability to explore the relationships between two or more variables; Write up statistical findings appropriately.

The course will include 10 contact hours taught by the course convener (Dr. Masood Gheasi). The course is optional.
Visualizing Data: Theory and Praxis

The course will enable students to develop visual communication skills in the field of urban studies and regional science. The focus is twofold: on the one hand, the course will provide an overview on the variety of tools and techniques adopted over time to convey information by means of visuals, with a more detailed description of selected examples of charts, timelines, maps and the design process behind them; on the other hand, students will familiarise themselves with the essential image making/ manipulation software used in the creation of information graphics through a sound introduction to the capabilities of Adobe Photoshop and Adobe Illustrator, followed by a series of tutorials.

The course will include 10 contact hours taught by the course conveners (Maddalena Falletti and Roberto Rota). The course is optional.

Methods of Geographical Analysis

The Methods of Geographical Analysis course is aimed at providing students with an introduction to the analytical methods and tools for handling spatial data. The emphasis of this course is on the choice and application of appropriate methods for the analysis of spatial phenomena of relevance in the fields of applied Regional Science and Urban Studies. The theory behind the different methods will be presented and discussed. The course has also a strong practical orientation, providing the students with the basic knowledge for handling geographic information systems (GIS) and other relevant tools in contemporary geographical analysis. The students are expected to become familiar with these methods, so that they can develop an understanding of their potential and of its limitations.

The course will include 10 contact hours taught by the course convener (Professor Rachel Franklin, Brown University, US). The course is optional.
Networks are everywhere, from the internet and social networks to financial markets and biological systems. During recent years network science has emerged as a holistic approach used to analyze the structure and evolution of complex systems in social and economic sciences. The first part of the course aims to explain the basics of graph theory and provides an introduction to the modern field of network science to an interdisciplinary audience. In the second part of the course, students learn the conceptual tools and a wide array of statistical metrics used to characterize the structure and dynamics of networks in the context of economic complexity science. Extensive online resources, including software and packages for network analysis, make this a multifaceted course for anyone with an interest in network science.

The course will include 10 contact hours taught by the course convener (Dr. Gloria Cicerone). The course is optional.

This course introduces the main methodologies employed to evaluate policy programs. Some of the methodologies analyzed include cost/benefit analysis, survey based evaluation, process-tracing, case-study comparison, meta-studies, participatory-action research, crowd-sourcing and randomized controlled trials. The aim of the course is to teach the students how to design, implement and evaluate a variety of impact evaluation frameworks that combine multiple evaluation methodologies in a coherent system.

The course will include 10 contact hours taught by the course convener (Dr. Paolo Spada). The course is optional.
Seminars

Lectures will be complemented with a series of seminars, where leading international experts from a variety of disciplinary fields will present results from their research and share their knowledge with participants. The seminars are conceived of as an opportunity to discuss key topics in contemporary regional sciences and urban studies. For a complete list of seminars and visiting lecturers, please refer to the GSSI website.

Faculty advisors

It is not only allowed, but also recommended, that each doctoral student be advised by two co-advisors (one internal and one external). The internal advisor must be chosen among the members of the Teaching Committee (http://www.gssi.infn.it/people/professors/lectures-social-science-gssi-cities). External advisors must be approved by the Doctoral Program Coordinator. The internal supervisor needs to be selected by the beginning of the second year (by the 15th of December 2019), while the external supervisor should be proposed by June 2020 (and, in any case, no later than the end of the second year).
In each academic year, the doctoral students will be required to complete specific assignments (see below) in order to prove their ability to continue with the program. In addition to formal assignments throughout the PhD program, students must be in contact with their supervisor and the PhD coordinator on a regular basis and inform them on their study path and research progress. Details on the assignments are given below.

In order to be admitted to the second year, each student must attend all compulsory courses, at least 80% of the seminars, and at least 6 (of 9) optional courses.

Moreover, each student must deliver:

- Two short essays (3-4,000 words), one related to the cores “Critical approaches to the city” and “Urban Planning”, and the other related to the cores “Economic geography” and “Regional science”. Each essay will provide a response to a key question/topic chosen among a short list provided by the course conveners. The deadline for delivering an advanced draft of these essays is set at the end of the second term (May 13th, 2019). Further details on these essays will be provided in due time.

- A first draft of the Ph.D. research proposal to the Teaching committee by October 15th, 2019. The dissertation proposal is intended to provide evidence that the student has set forth a plan of research that promises to contribute to the body of knowledge in the field of urban studies and regional science. The proposal must conform to guidelines that will be circulated in due time. Students will generally start working on the research proposal at the beginning of May 2019. In any case, the research proposal will be finalized at the end of the first term of the second year.

The Doctoral Candidacy Examination is administered by the end of the first year by an Examination Committee consisting of at least two faculty members. The Candidacy Examination consists of a written and an oral portion. The written portion of the Candidacy Examination refers to the assessment of the documents mentioned above. The oral portion of the Candidacy Examination is a 30 minute oral examination that may focus on the dissertation proposal, but may cover any aspect of the student’s doctoral program. Successful completion of the Candidacy Examination requires a unanimous vote of the Examination Committee and admits the student to the second doctoral year.
Second year: requirements and doctoral candidacy examination

Each student must deliver the final version of the dissertation proposal by the 15th of January 2020. A report on the activities carried out during the PhD program and a final draft of at least one paper (or one chapter) of the PhD thesis (see requirement for the PhD dissertation below) must be delivered by the 15th of October 2020. A meeting with all the faculty members will be organized at the half of the second year (around May) in order to check and discuss the progress of each student’s research. Students will be asked to prepare a 20-minutes presentation about the current stage of their research. Detailed information will be provide in due time. The Doctoral Candidacy Examination for the admission to the third year is administered in the same way as the examination for the admission to the second year.

Third year: requirements and doctoral candidacy examination

Each student is expected to have a final version of two papers and a draft of the third paper (or 3-4 chapters) by the 15th of October 2021. A report on the activities carried out during the third year of the PhD program must be delivered as well. The Doctoral Candidacy Examination for the admission to the fourth year is administered in the same way as the examination for the admission to the third year. A meeting with all the faculty members will be organized at the half of the third year (around May) in order to check and discuss the progress of each student’s research. Students will be asked to prepare a 20-minutes presentation about the current stage of their research. Detailed information will be provide in due time.

In order to be admitted to the final exam, each student must prove s/he attended at least 20 academic or departmental seminars in total during the second, third and fourth year. A meeting with all the faculty members will be organized at the midpoint of the third year (around May) in order to check and discuss the progress of each student’s research. Students will be asked to prepare a 20-minutes presentation about the current stage of their research.
The final exam consists in the thesis defense in front of a Committee composed of three professors (one member of the teaching committee and two external members) who will decide about the student’s graduation.

In order to proceed to the thesis defense, the candidate has to submit the whole dissertation manuscript for internal and external examination prior to defense. In particular, the Ph.D. candidate has to:

- Submit a complete draft of the dissertation to two external referees during the first days of September, 2022. By the end of October, 2022, the assigned referees will provide their evaluations of the thesis. The Doctorate Board, once received an evaluation by the referees and a report by the student’s supervisor, will decide about the admission to the final thesis submission.
- To be admitted to the defense, students will have three weeks to revise the thesis according to the reviewers’ comments.
- Submit the Final Thesis to the Examination Committee 1 month before the expected graduation date, together with a report on the activities carried out during the PhD program.

Information on timing of the defense sessions will be circulated when officially scheduled.
<table>
<thead>
<tr>
<th>Requirements of the Ph.D. Thesis</th>
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</thead>
<tbody>
<tr>
<td>Students can choose between two different thesis formats: Papers Collection and Monograph.</td>
</tr>
</tbody>
</table>

**Papers collection**

Students can choose to structure a collection of three papers focused on a topic whose theoretical, methodological and empirical dimensions must be addressed. The common thread across the papers has to be explained and discussed in an introduction to the collection.

Accordingly, the dissertation manuscript is composed of three distinct papers and one introduction. A concluding chapter may also be included at the request of the supervisor, external reviewers and/or the student’s own will.

Co-authorship is admitted for one or two papers provided that the individual contribution by the PhD candidate is significant and fully acknowledged in the paper. That is, co-authorship is allowed up to two papers out of three only if the PhD candidate is evidently the principle author of the project.

Each paper has to be conceived as an article that meets international publication standards, that is: it is around 8,000 to 10,000 words and should include title, abstract, up to six keywords, introduction, literature review, methodology, findings, discussion and conclusion, reference list (including only in-text citations). Appendices for reporting e.g. photographic materials, tables, data elaborations can be included, out of the word count.

The introduction should not exceed 7,000 words. The collection can be concluded with a full bibliography, including all the references used for the thesis production, even if not cited within the texts.

A template for the Paper Collection formatting will be circulated.

**Monograph**

A Monograph consists usually of 5 chapters including an introduction, literature review, methodology, findings/discussion of results and conclusion. It opens with an abstract of about 1,000 words, followed by up to six-eight keywords. The length of the monograph should be around 50,000 to 80,000 words.

Appendices for reporting e.g. photographic materials, tables, data elaborations can be included, out of the word count.

A template for the Monograph formatting will be circulated.
The GSSI is committed to research ethics. Any form of plagiarism is not accepted. The PhD thesis will be verified with anti-plagiarism systems, supervisors and lecturers will carry out control over papers and essays. Sanctions will be defined for rules infringements and exclusion from the PhD program may be decided.

Study and research abroad is encouraged by the GSSI and all students are invited to discuss this opportunity with their supervisors. Once agreed with the supervisors, the mobility period has to be approved by the Coordinator of the PhD program and the Area Director. At least two months before departure, the student has to formally communicate the mobility project by email to the Area Director, the PhD Coordinator and the Administration Office to request approval, by providing complete information on destination (University, Department), visiting duration, reference person at the host institution (including contact details) and a brief summary of the research agenda. The supervisor, previously informed, has to be included in the communication. During the period abroad, the yearly amount for the incoming cohort remains € 16,159.91 gross and an additional 50% on a monthly basis may be awarded, if the visiting period is previously approved by the GSSI. Overall, the research period abroad can last from 3 to 9 months.
Research Budget

All doctoral students will be awarded an annual research budget (about the practicalities and a detailed list of allowed expenses, please be in touch with the Administration Office):

- first year doctoral students: €1,500 to be used for education only, e.g. summer schools;
- second year doctoral students: €2,000 (research missions, conference/workshop participation, English proofreading, etc.);
- third year doctoral students: €2,000 (research missions, conference/workshop participation, English proofreading, etc.).
- fourth year doctoral students: €2,000 (research missions, conference/workshop participation, English proofreading, etc.).

Before spending the research budget, students have to inform their supervisor/s and, with their agreement, they have to follow the GSSI administrative procedure, to request formal approval by Francesco Chiodelli (francesco.chiodelli@gssi.it) and Alessandra Faggian (alessandra.faggian@gssi.it).

The GSSI website and communication

Students are required to provide all information needed for their personal page on the GSSI website and to update their profiles regularly (updates on e.g. conference participation and published papers). Every three months, each student has to review his/her webpage and send any request for updates to Félix Modrego (felix.modrego@gssi.it).
Teaching Committee

Bianca Biagi  
University of Sassari, Italy

Andrea Brighenti  
University of Trento, Italy

Francesco Chiodelli  
GSSI, Italy

Alessandro Coppola  
GSSI, Italy

Marco Cremaschi  
Sciences Po, France

Alessandra Faggian  
GSSI, Italy

Ugo Fratesi  
Polytechnic University of Milan, Italy

Simona Iammarino  
London School of Economics, UK

Philip McCann  
University of Sheffield, UK

Marco Modica  
GSSI, Italy
Mark Partridge
The Ohio State University, USA

Marco Percoco
Bocconi University, Milan, Italy

Andrés Rodríguez-Pose
London School of Economics, UK

Giulia Urso
GSSI, Italy

Alberto Vanolo
University of Turin, Italy

Paolo Veneri
OECD, Paris, France

Federico Zanfi
Polytechnic University of Milan, Italy