

Book of Syllabus

EMJM on Climate Change and Diversity: Sustainable Territorial Development (CCD-STeDe)



University of Padova

Department of Civil, Environmental and Architectural Engineering

Batch 13

Ay 2023/2024 – First Semester



UNIVERSITÀ
DEGLI STUDI
DI PADOVA



UNIVERSIDAD ANDINA
SIMÓN BOLÍVAR
QUITO



UNIVERSIDADE da MADEIRA



UNIVERSIDADE DE COIMBRA



UNIVERSIDADE do ALGARVE

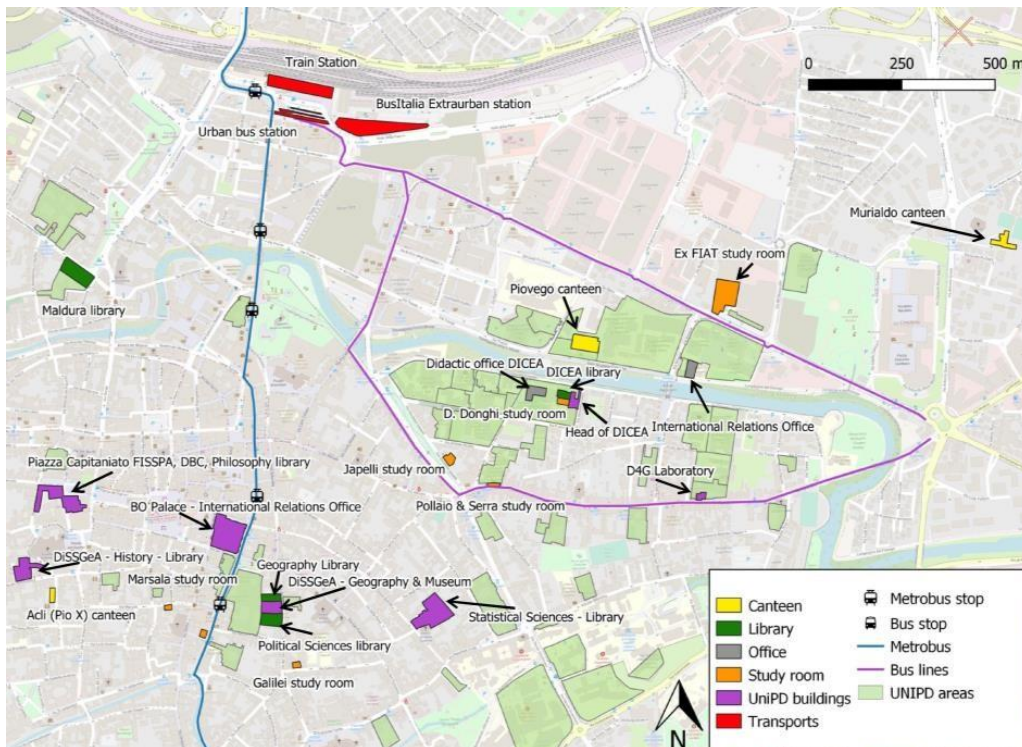
TABLE OF CONTENTS

MAP OF PADOVA & INFORMATION.....	3
USEFUL ADDRESS.....	4
USEFUL CONTACTS.....	6
USEFUL INFORMATION.....	7
CCD-STEDE SOCIAL NETWORK.....	9
UNIVERSITÀ DEGLI STUDI DI PADOVA - TEACHING UNITS 2023/24 – FIRST SEMESTER.....	10
CU1 - COMMUNICATION, CULTURE AND THE KNOWLEDGE OF ITALIAN SOCIO-CULTURAL ENVIRONMENT.....	11
CU2 - TERRITORY, DEVELOPMENT AND ALTERNATIVES.....	13
CU3 - GEOVISUALIZATION OF TERRITORIAL CHANGE: DIGITAL EARTH AND PARTICIPATORY GIS.....	18
CU4 – ENVIRONMENTAL CONFLICTS, CLIMATE JUSTICE, AND SOCIAL IMPACT ASSESSMENT.....	23
CU5 - TOOLS AND PATHS FOR SUSTAINABLE TERRITORIAL CHANGE (9 ECTS).....	28
CU5 - TOOLS AND PATHS FOR SUSTAINABLE TERRITORIAL CHANGE (6 ECTS).....	29
<i>Group dynamics and transformative learning.....</i>	<i>29</i>
CU5 - TOOLS AND PATHS FOR SUSTAINABLE TERRITORIAL CHANGE, OPTION A.....	33
<i>Cultural issues in territorial change.....</i>	<i>33</i>
CU5 – TOOLS AND PATHS FOR SUSTAINABLE TERRITORIAL CHANGE, OPTION B.....	37
<i>Data analysis in territorial transition.....</i>	<i>37</i>
THESIS AND INTERNSHIP AT PADOVA UNIVERSITY.....	40
LECTURERS LIST.....	41

Map of Padova & Information



UNIVERSITÀ DEGLI STUDI DI PADOVA



UNIVERSITÀ DEGLI STUDI DI PADOVA



UNIVERSIDAD ANDINA SIMÓN BOLÍVAR



UNIVERSIDADE da MADEIRA



UNIVERSIDAD DE SEVILLA



UNIVERSIDADE NOVA DE LISBOA

Useful Address

GIScience and Drones for Good (D 4 G) Laboratory

Department of Civil, Environmental and Architectural Engineering

Via Ognissanti, 39

Headquarters and Didactic Secretariat of Department of Civil, Environmental and Architectural Engineering

Via Marzolo 9

Geography section

Department of Historical and Geographic Sciences and the Ancient

World | Via Del Santo 26

The International Relations Division

Palazzo Bo, Via VIII Febbraio, 2 Lungargine del Piovego, 1

Libraries

Biblioteca Centrale di Ingegneria | Via Loredan 20

Biblioteca di Geografia | Via del Santo 26 (entrance Via del Santo 22)

Biblioteca di Scienze Economiche e Aziendali | Via del Santo 22

Biblioteca “ EttoreANCHIERI” di Scienze Politiche | Via del Santo 28

Biblioteca di Storia | Via del Vescovado 30

Biblioteca di Filosofia | Piazza Capitaniato 3

Biblioteca Maldura | Piazzetta Gianfranco Folena 1

Biblioteca di Scienze Statistiche | Via Cesare Battisti 241

Canteens

Mensa Piovego | Viale G. Colombo 1 Belzoni

Mensa Belzoni | Viale Belzoni 158

Murialdo | Via Grassi 42

Ristorazione Acli (Pio X) | Via Bonporti

Study Rooms

Aula studio D. Donghi | Via Marzolo 9

Aula studio Ex Fiat | Via Venezia 13

Aula studio Galilei | Via G. Galilei 42

Aula studio Jappelli | Via Japelli 9

Aula studio Tito Livio | Galleria Tito Livio 7

Aula studio Marsala | Via Marsala 15

Aula studio Pollaio e Aula studio Serra | Via Belzoni

Useful Contacts

CCD-STeDe info mail: stedeccd.dicea@unipd.it

Massimo De Marchi

CCD-STeDe General and Local Director

massimo.de-marchi@unipd.it

phone: 049 8275454

CCD-STeDe Teaching Assistant – Elena Secondo

stedeccd.dicea@unipd.it

Valerie Darjo

Didactic Secretariat

didattica@dicea.unipd.it; valerie.darjo@unipd.it

phone: 049 827 5586

Elisa Trovò

Didactic Secretariat

didattica@dicea.unipd.it; elisa.trovo@unipd.it

phone: 049 827 5597

Daniela Riccardi

Didactic Secretariat

didattica@dicea.unipd.it; daniela.riccardi@unipd.it

phone: 049 8275319

Elisa Zambon

International Relations Division

mobility.in@unipd.it; elisa.zambon@unipd.it

phone: 049 827 3741

Useful Information

Exam sessions

The official exam session according to the University of Padua is in the period 22 January – 24 February, 2024.

Considering that students of PATH 1 will have to travel for the second semester in January 2024, the exams will be delivered at the end of December for all CCD – SteDe students. The following dates have been set:

CU2 - Territory, development and alternatives

- Unit A - Microfinance for territorial change: 10/12/2023 assignment upload – 18/12/2023 (9.00) oral presentation
- Unit B - Alternatives to development and territorial practices of post development: 22/12/2023 assignment upload

CU3 - Geovisualization of territorial change. Digital Earth and Participatory GIS: 14/12/2022 (14.30)oral examination

CU4 - Environmental conflicts, climate justice and social impact assessment: 11/12/2023 (14.30) oral presentation– 29/12/2023 report upload

CU5 - Tools and paths for sustainable territorial change:

Groups dynamics and transformative learning: 30/11/2023 assignment upload – 20/12/2023 (15.00) registration and eventual discussion

Cultural Issues in territorial change: 13/12/2023 report upload – 20/12/2023 (13.30) oral examination

Data analysis in territorial transition: 21/12/2023 (10.30) written examination

Holidays/suspension of teaching activities

All Saints' Day: Wednesday, 1 November 2023

Immaculate Conception: Friday 8 December 2023

Christmas holidays: from Saturday, 23 December 2023 to Sunday, 7 January 2024.

Study Plan

All students must compulsorily fill in the study plan by December, and in any case before the winter exam session. The study plan must be filled in to visualize the courses of the current year in the personal Uniweb profile, and to avoid problems with the registration to the exam lists. The study plan will be available to be filled online between October and November. You will receive proper indication by the STeDe Secretariat on how to fill it.

The filling in of the study plan must be performed via Uniweb: Login → Teaching → Study plan.

CCD-STeDe Social Network

We at CCD-STeDe are very active on social networks! We have a [Facebook](#) and an [Instagram](#) page that we update often with world news, articles, and pics about our activities. The experience of living and studying abroad is wonderful and engaging, so CCD-STeDe Students will be actively involved in the management of social networks, sharing with world projects, presentations and research that will be carried out over the two years of the program! Then, we also have a [YouTube channel](#) where we share our videos!



Università degli Studi di Padova - Teaching Units 2023/24 – first semester

CU1: Communication, culture and the knowledge of Italian socio-cultural environment (3 ECTS) –
Prof. Massimo De Marchi

CU2: Territory, development and alternatives (6 ECTS) -
Prof. Alberto Lanzavecchia – Prof. Anna Brusarosco

CU3: Geovisualization of territorial change: Digital Earth and Participatory GIS (6 ECTS) – Prof. Salvatore Pappalardo – Prof. Francesca Peroni

CU4: Environmental conflicts, climate justice and social impact assessment (6 ECTS) – Prof. Alberto Diantini

CU5: Tools and paths for sustainable territorial change (9 ECTS)

- Groups dynamics and transformative learning (6 ECTS) – Prof. Alessio Surian

Choice between:

- Cultural Issues in territorial change (3 ECTS) – Prof. Stefano Pontiggia
- Data analysis in territorial transition (3 ECTS) – Prof. Rosa Arboretti

CU1 - COMMUNICATION, CULTURE AND THE KNOWLEDGE OF ITALIAN SOCIO-CULTURAL ENVIRONMENT

CCD - STe De

Massimo De Marchi

First Year – Semester 1 ECTS: 3

Duration: 24 hours

Office hours: appointment to be defined with the professor

Class venue: Aula CM, Palazzetto Costruzioni Marittime, via Ognissanti 39,
Padova

CONTACTS:

phone: 049 8275454

email: massimo.de-marchi@unipd.it

Course Description and Aims

The main aim of this introductory seminar, organized in different units, is to introduce students at the beginning of their master course to Italian socio-cultural environment and language focusing on experiences and practices of change-making toward sustainable territorial development especially in cities and neighborhoods.

Specifically, students will be introduced to a comparative approach of various urban sustainable development initiatives taking place in different European and World context, familiarizing with European sustainable urban and territorial policies and the Italian specificity.

Fieldwork will take students actively exploring the city and territory around of Padova and the different geographical and administrative scales; the province of Padova, the Veneto region and the special form of territorial organization of urban sprawl.

Contents

Below a summary of main topics of the introductory seminars. Students will receive a detailed program of Kick off Seminars at the end of August before the start of the International Master Degree.

Unit one (introductory week, can vary annually)

- World café “Meet your future”
- Climate justice in cities
- Agroecology and food sovereignty
- Padua green and blue infrastructures and socio-ecological implications

Unit two (during the Padova semester)

- Becoming change maker on Sustainable Territorial Development and Climate Change Adaptation practicing communication on social networks

Unit Three (at conclusion of Padova Semester)

- Making changes in sustainable city and territorial development

Teaching methodology and learning approaches

Methodology: the seminar week will be based on a participative and active methodology integrating seminars of experts, study visits, working groups, transformative learning workshops.

CU2 - TERRITORY, DEVELOPMENT AND ALTERNATIVES

CCD - STe De

Alberto Lanzavecchia – Anna Brusarosco

The course is organized in two units:

- Unit A: Microfinance for territorial change (prof. Alberto Lanzavecchia) – 24 hours, 3 ECTS
- Unit B: Alternatives to development and territorial practices of post development (prof. Anna Brusarosco) – 24 hours, 3 ECTS

First Year – Semester 1 ECTS: 6

Duration: 48 hours

Office hours: appointment to be set with students

Classes venue: Aula CM, Palazzetto Costruzioni Marittime, via Ognissanti 39, Padova

CONTACTS:

Prof. Alberto Lanzavecchia

phone: 049 98274060

email: alberto.lanzavecchia@unipd.it

Prof. Anna Brusarosco

email: anna.brusarosco@unipd.it

Course Description

Critical development, alternative development, alternatives to development, post- development a rich array of reflections and practices that challenge the menu of globalizing and universalizing development theories and initiatives to propose a pluriverse of words.

The COVID pandemic arriving at the end of six decades of uneven development highlights the global predatory capitalism embodied in many development discourses consolidating social exclusion, resource extraction, environmental injustice and accumulation by dispossession.

The Unit “Microfinance for territorial change” presents the tool of microfinance – a market-based approach for leveraging community assets towards social and financial inclusion – and then discuss whether it can be the right one, if applied properly, to generate social and economic positive impacts.

Since given assets in a community is at the foundation of microfinance sustainability, the unit eventually discuss wherever climate change is negatively affecting community resources: how microfinance can foster community resilience?

The unit “Alternatives to development and territorial practices of post development” will focus on the long reflections and debates on alternatives to development taking into account two landmarks from the 1992 “Development Dictionary” of Wolfgang Sachs to the 2019 “Pluriverse: A Post Development Dictionary” (Kothari A., Salleh A., Escobar A., Federico F., Acosta A.).

Students firstly will enter in contact with reflections on the crisis and critics of development coming from different geographical and cultural contexts. In parallel, the course offers a comparative reflection between universalizing reformist solutions embodied in many sustainability discourses, and transformative initiatives starting from different relations between society and nature to build a multiplicity of worlds.

The course will offer the possibility to deal with reflections and practices and to meet a network of scientists and activists working to build alternative futures.

Aims & Learning Outcomes

To provide the students with the main theoretical and methodological elements to work independently in the debate and the construction of public policies on microfinance and alternatives to development, at the international level.

A student who has met the objective of the course will be able:

- To know the main theoretical elements and the scientific and the public debate on microfinance for territorial change and for implementation of climate change strategies at local level
- To formulate proposals for the construction of public policies and territorial projects in the perspectives of post-development approaches
- To acquire methods to develop business analysis

Contents

Unit A: Microfinance for territorial change

- Framing a market-based approach: vulnerability, self-help (empowerment) and territorial challenges.
- Overview of microfinance: target markets, products and service of microfinance, microfinance institutions, loan and saving products, capital markets and investors in microfinance.
- Climate change and microfinance: adaptation and mitigation strategies driven by microfinance products.
- Case studies taken from around the world (SDG 2030 related)

Unit B: alternatives to development and territorial practices of post-development

- Pluriversal paths
- Developments and its crisis: global experiences, European, Asian, African, Oceanian and Latin American Critique of Development

- Universalizing the earth: reformist solutions from circular economy to sustainable development
- People's pluriverse: from sentipensar to pacha mama

Teaching methodology and learning approaches

A participatory methodology will be used including seminars organized by the students, analysis of case studies, role play, interviews with actors. During the first lesson the professors will deliver the list of texts that will be discussed during the course. The participants will be responsible for coordinating some seminars.

Course material and references

Articles, case studies and different materials will be recommended during the course based on the students' language skills.

A Moodle educational platform will be activated to accompany educational activities. Students are recommended to register immediately at the start of the course on the Moodle platform.

Ledgerwood J., Earne J., Candace N. (eds.), (2013), *The New Microfinance Handbook: A Financial System Perspective*. Washington D.C.: World Bank

Bateman M., Blankenburg S., Kozul-Wright R. (eds), (2019) *The rise and fall of global microcredit: development, debt and disillusion*, New York : Routledge

Kothari A., Salleh A., Escobar A., Federico F., Acosta A. (2019), *Pluriverse: A Post- Development Dictionary*, Tulika Books

Sachs W. (1992) (Ed.), *The Development Dictionary a guide to knowledge as power*, Zed Books (see second edition 2009)

Examination

For each unit (microfinance for territorial change and territorial alternatives to development) students prepare a project work during the course with final discussion by oral examination on the paper prepared. Evaluation criteria for the comprehensive assessment are:

- Active participation in lectures and in the Moodle platform
- Knowledge of the main issues of the debate on microfinance for territorial change and territorial alternatives to development
- Ability to formulate proposals for the construction of public policies and projects on microfinance and post-development approaches

CU3 - GEOVISUALIZATION OF TERRITORIAL CHANGE: DIGITAL EARTH AND PARTICIPATORY GIS

CCD - STe De

Salvatore Pappalardo – Francesca Peroni

First Year – Semester 1 - ECTS: 6

Duration: 48 hours

Office hours: Friday 17-19

Classes venue: Aula CM, Palazzetto Costruzioni Marittime, via Ognissanti 39,
Padova

CONTACTS:

phone: 049 8277981

email: salvatore.pappalardo@unipd.it

Course Description

The boost of Information Communication Technologies together with Digital Earth is, at present, giving to digital maps a key role in spatial analyses, representation and geovisualization of territorial changes. At the same time, evolution of web 4.0 and geospatial technologies (GIS, webGIS, GPS, geoAPP for smartphones) represents an opportunity window for citizens and sectors of civil society to be involved in processes of territory representation, decision making, and empowerment.

The course offers to students conceptual and practical tools for the analysis, representation and communication of territorial transformations by the integrated use of GeoInformation Communication Technologies (GeoICT),

developed within the framework of the Digital Earth, critical cartography and Participatory Geographic Information Systems (PGIS). Through a critical approach to cartography and official territorial representations the course allows to acquire knowledge and skills in the field of cartographic production and communication through participatory processes, able to enhance cultural diversity and activate multiple paths of eco-citizenship, territorial transitions and sustainability from below.

Activities of the course will start from the main theoretical elements to de-build the official cartographic representations, and to interpret the logic and dynamics of power and the biopolitical use of maps. Moreover, the course will provide students critical approaches to new GeoICT in cartographic empowerment processes such as counter-mapping, participatory cartography, conscious map-making and eco- mapping. Finally, the course will involve students in a “learning environment” of practical activities, in order to use the potential of Digital Earth tools to manage geovisualization and empowerment needs related to sustainable territorial development projects, to support sustainability policies, and to manage emergency/post-emergency contexts. In this framework, Participatory GIS tools in the processes of participatory territorial analysis and empowerment of local communities to support policies and projects for sustainable territorial development will be adopted in practical activities.

Aims & Learning outcomes

The general aims of the course are 1) to provide a set of conceptual and methodological tools to interpret and to geovisualize territorial changes and dynamics as well as socio-environmental conflicts; 2) to enroll students in the use of Digital Earth and Participatory GIS for cartographic empowerment processes such as counter-mapping, participatory cartography, conscious map-making and eco- mapping.

By learning outcomes students will be able:

- to know the key theoretical elements of official and critical cartography
- to interpret logics and dynamics of power in map making and map representation
- to use Digital Earth technologies and PGIS tools for both territorial changes geovisualization and participatory territorial analysis and empowerment of local communities

- to use maps and geoICT as communication tools for sustainable territorial development

Contents

- Introduction to the course, cultural perspectives, professional perspectives through approaches and tools offered by Digital Earth, PGIS and critical cartography.
- The language of maps: cartographic logics and communication strategies, cartographies and conflicts
- Communication and cartographic semiotics
- Cartography, power and democracy. From map to the territory, from pixels to networks
- PGIS and Volunteered Geography for eco-mapping: geotools for eco-citizenship (Ona-ODK system, geocitizen)
- Geovisualization and power: the use of Digital Earth in social and territorial control
- Critical cartographic representations through the use of emerging Digital Earth technologies.
- Main theatre and desktop applications of Digital Earth: Science on a Sphere. Current and future technological solutions and historical origins.
- Digital Earth Labs: Advanced use of Google Earth Professional, Yandex, Bing Map 3D and NASA World Wind.
- Google Earth Engine: potential and applications for multiscale spatial analysis
- Case studies on urban and rural sustainability: participatory mapping and participatory processes for urban sustainability (mobility, soil consumption, heat islands, air pollution), mapping of impacts in agriculture and good practices
- Case studies on the application of PGIS for the protection of indigenous territories and biodiversity in developing countries
- Cartographies and representations: maps as communication tools.

Methodology

Activities will be based on both frontal teaching and peer to peer interaction within a "learning by doing" environment. A participatory methodology will be adopted, including seminars organized by students, case studies, workshops. During the first activities, the teacher will deliver the list of bibliographic and cartographic materials that will be discussed during the teaching. Participants will be responsible for coordinating some seminar moments. During the first classes the projects for the interpretation and cartographic production to be developed through software such as Google Earth Professional and PGIS and Volunteered Geography Information tools will be defined. There will be field work and/or virtual excursions. Students are invited to bring their own laptop, a learning in situation mode will be used with continuous applications to case studies by using Digital Earth and PGIS tools.

Course Material and References

During the first activities, the teacher will deliver the list of bibliographic and cartographic materials to be discussed during the lessons. During the first lessons the projects for the interpretation and cartographic production to be developed through software such as Google Earth Professional and PGIS and Volunteered Geography Information tools will be defined. There will be fieldwork and/or virtual excursions.

Articles, grey literature, web resources and case studies will be presented during the course based on language skills.

A Moodle teaching platform will be activated and will be structured with multimedia materials (videos, territorial datasets, bibliography, tutorials) to support the teaching activities. Students are recommended to enroll immediately at the beginning of the course in the Moodle platform.

References:

- Brown G, Kyttä M, Key Issues and Research Priorities for Public Participation GIS (PPGIS): A Synthesis Based on Empirical Research. --: Applied Geography, 2014. *Research Article*
- Bryan J, Participatory Mapping in "The Routledge Handbook of Political Ecology". New York: --, 2015.

- Capineri C, Haklay M, Huang H, Antoniou, V, Kettunen, J Ostermann, F Purves, European Handbook of Crowdsourced Geographic Information. London: Ubiquity Press, 2016.
- Craglia M, Ostermann F, Spinanti, Digital Earth from vision to practice: making sense of citizen-generated content. --: Int J Digital Earth 5(5):398–416, 2012.
- Guo H, Goodchild M, Annoni A., Manual of Digital Earth. --: Springer Open, 2020.
- Kim A M, Critical cartography 2.0: From “participatory mapping” to authored visualizations of power and people. --: Landscape and Urban Planning 142:215-225. Elsevier, --.
- Monmonier M, How to Lie with Maps (3rd Edition). Chicago: University of Chicago Press, 2018.

Examination

Preparation of a multimedia project, cartographic or written, related to the geovisualization of a representative case study, based on open source geographic and territorial data. Students will deliver and discuss the project during the final activities of the course.

Assessment criteria will be based on the followings:

- Active participation during the lessons and in the Moodle platform
- Knowledge of the main cultural, political and technical elements on critical cartography, Digital Earth and PGIS
- Ability to carry out a project using Digital Earth or PGIS software or platforms for the analysis and interpretation of territorial transformations.
- Ability to use Google Earth Professional, geo-browsers and geotools to support PGIS and Volunteered Geography.

CU4 – ENVIRONMENTAL CONFLICTS, CLIMATE JUSTICE, AND SOCIAL IMPACT ASSESSMENT

CCD - STe De

Alberto Diantini

First Year – Semester 1 ECTS: 6

Duration: 48

Office hours: flexible, to be agreed with the teacher

Classes venue: Aula CM, Palazzetto Costruzioni Marittime, via Ognissanti 39,
Padova

CONTACTS:

phone: 049 8277982

email: alberto.diantini@unipd.it

Course Description

We are living in an era characterized by major challenges, socioenvironmental conflicts, climate justice and social impact assessment, that involve us not only at the local scale but also globally as a whole human population. Coordinated actions are needed to address these challenges adequately, but to act quickly we need to analyse and understand their underlying dynamics, preparing experts, practitioners and consultants who may help decision-makers for effective responses.

Regarding socioenvironmental conflicts, the course provides an overview of the causes, dynamics, and evolution. Specifically, we will critically analyse the

theories and assumptions surrounding the study of socioenvironmental conflicts and methods and tools to manage them.

Concerning the theme of climate justice, the course focuses primarily on the social, political, and economic elements of the climate problem, framed by its ethical implications. We will discuss causes and future perspectives on climate changes and the links with social vulnerability, resource distribution, national policies and environmental conflicts.

About the last theme, the course introduces a broad understanding of the fundamental evolution, concepts, methods, and theories of Social Impact Assessment (SIA) in the contest of policy and regulation in the international background. Specifically, we will consider how to define social impacts and what measures to take in compliance with the SIA principles for different kinds of projects.

Aims & Learning outcomes

The combination of theoretical approaches integrated with the practical experimentation of some concepts of the course, will allow the student to acquire knowledge, skills and abilities of analysis and synthesis. The student who will have achieved the objectives of the teaching will be able to:

- Recognise the multiple forms and theories of environmental conflict
- Know and practice appropriate tools for conflict management
- Recognise the causes of climate changes, impacts and socio-politic implications in climate justice
- Identify, interpret and evaluate real-world problems of climate justice
- Critically evaluate documents and reports of social impact projects
- Apply the knowledge and skills needed to perform an SIA

Contents

- Introduction to the course, presentation of its contents, structure, objectives, evaluation methods and criteria
- Introduction to socioenvironmental conflict
- Conflict theory, drivers, and frames
- Development, resources, conflicts and justice

- Cultural issues in socioenvironmental conflicts
- Managing, resolving or hiding socioenvironmental conflict?
Processes and outcome
- Socioenvironmental conflict and management simulation
- The basic arguments of climate justice
- The science of climate changes: causes and future perspectives
- Actual and future global distribution of climate change impacts
- Power networks and policies: companies, institutions, nations, resources and people
- Climate justice: social vulnerability and social construction of climate impacts
- Climate justice and indigenous people
- Climate and Conflict: Climate Wars?
- Bringing social justice and sustainability together through the climate-justice lens
- Climate changes, climate justice and petroleumscape
- Some key background concepts relevant to Social Impact Assessment
- The phases and tasks of the Social Impact Assessment
- Impact prediction, evaluation and mitigation
- Stakeholder Engagement in the framework of Social Impact Assessment
- Human rights and Social Impact Assessment
- Case studies of Social Impact Assessment

Teaching methodology and learning approaches

The course has a participatory and interactive approach, including in-class discussion, analysis of case studies, role play. Students will be involved in the coordination of some interactive events such as seminars and presentations of case studies. They are recommended to register on the Moodle platform that will be activated to accompany didactical activities and facilitate the interactions among them and the teacher.

Course Material and References

Specific readings on the course topics will be provided at the beginning and during the course. Since much of the learning will be built on material from the readings, it will be very important that students complete the assigned readings and other assignments before class. Good preparation and active participation in the discussion and role-play exercises are fundamental for everyone's learning experience.

References:

- Scheidel, A., Del Bene, D., Liu, J., Navas, G., Mingorría, S., Demaria, F., ... & Martínez-Alier, J., Environmental conflicts and defenders: a global overview-, 2020.
- Homer-Dixon, T. F., Environment, Scarcity and Violence. --: Princeton University Press, 1999.
- De Marchi, M., Aprender de los conflictos ambientales: protagonismo social en las transformaciones territoriales en Latinoamérica. --: CLACSO, 2017.
- Robinson, M., & Shine, T, Achieving a climate justice pathway to 1.5 C. -- : --, 2018.
- Klein, N., This changes everything: Capitalism vs. the climate.. --: Simon and Schuster., 2015.
- Jafry, T, Routledge handbook of climate justice. --: Routledge, 2018.
- Prenzel, P. V., & Vanclay, F., How social impact assessment can contribute to conflict management. --: --, 2014.
- Vanclay, F., Esteves, A. M., Aucamp, I., & Franks, D. M. (2015). Social Impact Assessment: Guidance for assessing and managing the social impacts of projects. IAIA

Examination

- 1) Report on a case study
- 2) Case study presentation
- 3) Paper presentation
- 4) Individual tasks

Assessment criteria:

- Students' participation during the lectures, including the familiarity with the assigned reading materials and use of the Moodle platform
- Argumentative skills, clarity of exposition and accuracy in the terminology both in the written document and in the oral presentation of the report
- Acquired knowledge about the issues discussed in the classes

CU5 - TOOLS AND PATHS FOR SUSTAINABLE TERRITORIAL CHANGE (9 ECTS)

The course (9 ECTS) consists of:

Group Dynamics and Transformative Learning (6 ECTS) -
Prof. Alessio Surian

And a choice between:

➤ **Cultural Issues in territorial change (3 ECTS) -**

Prof. Stefano Pontiggia (this course is recommended for student who have not studied cultural anthropology in their bachelors)

➤ **Data analysis in territorial transition (3 ECTS) -**

Prof. Rosa Arboretti (this course is recommended for student who have not studied statistics in their bachelors)

CU5 - TOOLS AND PATHS FOR SUSTAINABLE TERRITORIAL CHANGE (6 ECTS)

CCD - STe De

Group dynamics and transformative learning

Alessio Surian

First Year – Semester 1 ECTS: 6

Duration: 42 hours

Office hours: appointment to be taken with the professor

Classes venue: via del Santo, 26

CONTACTS:

phone: 0498274866

email: alessio.surian@unipd.it

Course Description

Within this perspective it addresses two main areas of work:

- cultural issues, with reference to The Three Dimensions of Learning (Illeris, 2002), i.e. the cognitive, the social and the emotional dimension;
- the participatory process and community work, with reference to handbooks such as Participatory Communication (Tufte & Mefalopulos, 2009).

By making use of classroom, outdoor and e-learning activities and resources, the course provides both theoretical and practical tools to frame the learning discourse in relation to the design of community actions that are based on participatory mapping, and planning approaches in relation to transformation and sustainability issues.

Particular emphasis is given to analytical tools and to facilitation methodologies that help planners and trainers to understand and to implement group dynamic activities that are suitable to a range of decision-making processes.

The cross-cultural dimension is also given particular attention in terms of intercultural communication theoretical and practical tools as well as of exposing participants to the core decolonial perspectives and analysis.

Aims & Learning outcomes

The course aims at enabling participants to develop key competencies to support local communities in their territorial decision-making process and to be able to communicate with a variety of stakeholders with an ability to bridge across cultural differences and different disciplinary languages, highlighting the specific rationale underpinning territorial design knowledge in order to be able to address and to involve specialist and non-specialist audiences in effective ways.

The course-specific learning outcomes related to:

- Ability to identify sustainability contested issues and expanding boundaries.
- Ability to solve problems in a non-reductionist manner also when addressing complex real-life problems.
- Ability to think creatively and holistically and to make critical judgments.
- Ability to provide feedback and to develop self-reflection (both personal and professional).
- Ability to identify, understand, evaluate and adopt values that are conducive to sustainability.
- Ability to approach conflicts and to bridge the gap between theory and practice, in promoting and facilitating participatory methodologies within sustainable and transformational territorial planning.
- Ability to participate creatively in interdisciplinary teams.
- Ability to initiate and manage change.

Contents

The course will lead the students in the active understanding and knowledge of these aspects:

- Understanding of the dynamics of socio-economic changes in their interaction with group dynamics and transformative learning at territorial level
- Understanding and ability to use the cognitive, affective and social dimensions of learning processes
- Use of active listening and of reciprocal maieutic in the facilitation of collective learning processes
- Understanding and facilitation of shared leadership dynamics
- Facilitation of collaborative learning in terms of territorial and participative activity

Teaching methodology and learning approaches

The learning activities are based on transformative learning methods that encourage participants to experience educational tools and to share feedback and reflection about it.

The use of the e-learning Moodle platform facilitates a blended learning approach in order to provide references to four key theory areas:

- the three learning dimensions (Illeris);
- transformative learning key issues (Freire, Taylor);
- socio-cultural perspectives (Gramsci, Vygotsky);
- collaborative knowledge management
- Practical classroom and outdoor activities include the use of:
 - Cooperative Learning
 - Self-managed interactive and small-group exercises
 - Survey and inquiries
 - Video-logs
- The final part of the course encourages participants to draft a specific transformative learning approach concerning a local case study that implies attention for the community and participatory dimension.

Course Material and References

- Recent papers from scientific journals and books (made available through the Moodle platform);
- Presentation slides;
- Workshops handouts;
- Assignment guidelines.
- Tufte T., Mefalopulos P. (2009) Participatory Communication. A Practical Guide. Washington: World Bank.

Examination

The final exam is based on a written examination (100%).

The evaluation is based on the individual papers (approx. 5 pages), which can take either the form of a case study or a spatial design and include elements of SWOT analysis, timeline, profile of the main territorial actors. Assessment criteria include:

- Understanding socio-economic changes in relation to the transformation dynamics of communities.
- Understanding of the three dimensions of learning.
- Use of dialogic and questioning approaches at the community level.
- Understanding and illustration of types of shared leadership.
- Reference to ways of facilitation of participatory activities.

CU5 - TOOLS AND PATHS FOR SUSTAINABLE TERRITORIAL CHANGE, Option A

CCD - STe De

Cultural issues in territorial change

Stefano Pontiggia

First Year – Semester 1

ECTS: 3

Duration: 24 hours

Office hours:

Classes venue: Aula CM, Palazzetto Costruzioni Marittime, via Ognissanti 39,
Padova

CONTACTS

phone: 3296498347

email: stefano.pontiggia@unipd.it

Course Description

What is ethnography? Is it investigative journalism? Is it a form of social storytelling? Is it a *modus operandi* to understand the rationale that governs contemporary social phenomena, actors, and spaces at different scales? The course introduces ethnography as a theoretically oriented practice in anthropology. It will investigate how ethnography can help analyze cultural difference and their uses in complex social contexts. Their conditions of possibility, their effects, and their role in transforming territories and cities will also be addressed.

The course aims to show how this research practice, based on individual interactions, conversations, and observations of different social contexts, is highly pertinent for understanding social actors' relationship with more "invisible" structural mechanisms and global processes. It will also address the issues of power, violence, ethics, and poetics in field research and the relationships between description and interpretation, narration, and theory. No ethnographic experience is required; however, the students who have conducted fieldwork, although limited in scope, and are preparing to do it again during the master's degree program, will benefit the most from this course.

Aims & Learning Outcomes

- Problematizing ethnographic research from the anthropological perspective with particular attention to the *modus operandi* of knowledge production (i.e., inter-individual interaction, observation, and conceptual mediation).
- Being able to implement practically the anthropological field research.
- Problematizing some concepts applicable to the different professional and disciplinary fields related to the Master's program on Climate Change and Diversity - Sustainable Territorial Development.

Contents

The course will tackle different issues and topics related to the cultural dimension of territorial change and development. After an introductory section to socio-cultural anthropology and its ethnographic methodology and rationale, it will focus on the many dimensions of change and development. It will specifically look at giving the students a critical understanding of development and analyzing how state institutions participate. The concept of developmental states will be critical in this regard.

During the course, students will be confronted with different materials useful to decline the concepts in a practical way and will also be introduced to some specific case studies that will be presented and jointly discussed.

Teaching methodology and learning approaches

The course is based on lecturing, classroom discussions (virtual), and oral presentations. It requires the desire to participate through sharing reflections actively, questions, critical arguments, and “Moodle” activities (ethnographic exercises, etc.)

The course requires participation and an essential personal involvement, as the course takes place in the form of lectures, active learning, interactive lecturing, cooperative learning, and portfolio redaction (see below). The teaching methodology consists of reading and critical reflection on the texts indicated, accompanied by their contextualization in the disciplinary debate. The moments of personal writing (“homework” on Moodle, feedback, and drafting of reading notes) are also unavoidable learning experiences. Screenings of ethnographic films and classroom exercises will be used to introduce the topics in the course.

Course Material and References

The course will rely on a reader composed of selected parts of the book and scientific articles listed below. During the course, additional bibliographical references will be provided in relation to the issues raised in the classroom discussions and the research projects/interests of the attending students.

Anthropology / ethnography

- Aull Davis, C. (1999), *Reflexive Ethnography: A guide to researching selves and others*, Routledge, London and New York: chapters 10 and 11 (Formalizing Analysis; Writing Up, Concluding).
- DeWalt, B., DeWalt, K. (2011), *Participant observation: A guide for fieldworkers*, AltaMira Press, Lanham: chapter 1 (What is Participant Observation).
- O’Neill M., Roberts B. (2020), *Walking Methods. Research on the Move*, London and New York: Routledge: 15-33.

The state

- Matur, N. (2016), *Paper Tiger: Law, Bureaucracy and the Developmental State in Himalayan India*, Cambridge: Cambridge University Press. Chapter 2 (The State Life of Law).

- Pontiggia, S. (2021), *Revolutionary Tunisia: Inequality, Marginality, and Power*, New York: Lexington Books (Introduction and Chapter 7: Money).
- Radcliff, S.A. (2001), "Imagining the State as a Space: Territoriality and the Formation of the State in Ecuador", in T. Blom Hansen and F. Stepputat (eds.), *States of Imagination: Ethnographic Explorations of the Postcolonial State*, Durham, and London: Duke University Press.

Development

- Ferguson, J. (1994), "The Anti-Politics Machine", *The Ecologist*, 24(5): 176-181.
- Mosse, D. (2013), "The Anthropology of International Development", *Annual Review of Anthropology*, 42:227-246.
- Rist, G. (1997), *The history of development. From Western Origins to global faith*, London and New York: Zed Books: 1-24 (Introduction and Chapter 1

Examination

The exam will focus on the redaction of the portfolio. Its constituent parts include drafting feedback, papers, a reasoned bibliography, and participation reports in the teaching activities. Please refer to the Moodle website for any further practical information.

The assessment will refer to the acquisition of distinct skills, such as the ability to analyze, understand, and adequately contextualize the issues addressed; highlight the argumentative structures and conceptual nodes; critically rework the contents through comparison and internal correlation between the various theoretical and practical trends; the clear and appropriate acquisition of a disciplinary lexicon.

CU5 –TOOLS AND PATHS FOR SUSTAINABLE TERRITORIAL CHANGE, Option B

CCD - STeDe

Data analysis in territorial transition

Rosa Arboretti

First Year – Semester 1 ECTS: 3

Duration: 24 hours

Office hours: appointment to be taken with the professor

Classes venue: Aula CM, Palazzetto Costruzioni Marittime, via Ognissanti 39,
Padova

CONTACTS:

phone: 049 8275594

email: rosa.arboretti@unipd.it

Course Description

The course provides students with a basic understanding of statistics and prepares them to solve problems that involve collecting and analyzing meaningful data. In the course, students will learn how to evaluate data and analyses from journal articles, as well as how to conduct and interpret the results of basic statistical analyses. Through laboratories and lecture materials, students will learn about core concepts and considerations for conducting basic quantitative data analysis.

Aims & Learning Outcomes

The course is intended to introduce students to basic statistical tools related to both descriptive and inferential analysis. The objective of the course is to provide the necessary tools to

- know how to manage a data set,
- represent a data set effectively,



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DI PADOVA



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SIMÓN BOLÍVAR



UNIVERSIDADE da MADEIRA



UNIVERSIDADE NOVA DE LISBOA



UNIVERSIDADE DO ALGARVE

- know how to read a data set critically,
- know how to conduct statistical analyses of spatial data and population studies and how to correctly interpret the results.

Contents

The course is structured into three parts.

First part

In the first part of the course, participants are introduced to the main concepts of research methodology and design of statistical surveys with questionnaire. Sources of official statistics (censuses, administrative sources, national and international statistical systems and office like Eurostat), are presented and discussed in order to be able to find accurate pictures of contemporary society and to evaluate the performance of national and international strategies.

Second part

In the second part of the course, participants are introduced to the main descriptive statistical tools to synthesize different types of variables: frequency tables and graphical representations, mean values and measures of variability. The role of statistical indicators with applications in different contexts: population, economic resources and territory is also discussed. The descriptive phase is a very crucial part of the analysis, to take sense of a dataset and start to explore trends and patterns.

Third part

The third part of the course refers to inferential analysis, where findings derived from sample surveys are generalized to become general results. Basic concepts of regression and correlation along with hypothesis tests are presented to face comparative studies and the research of relationships among several characteristics of topics of interest.

Teaching methodology and learning approaches

The learning activities are based on different methods:

- lectures;
- case studies to get into the topic in detail and understand practical issues;
- workgroups to encourage cooperative learning in a participatory dimension;
- computer laboratories to practice simple applications of the presented topics to real datasets.

Course material and references

The material of the course (slides, workgroups and computer laboratories) will be made available on the Moodle platform.

Statistical Methods for the Social Sciences, Global Edition, 5/E. Agresti (2017).

Examination

The final exam is based on written examination (100%).

Students are requested to draft a case study that they address highlighting and elaborating on issues that are relevant in relation to the community and the participatory dimension.

Assessment criteria include:

- Consistency with course content and principles
- Ability to provide a rationale for and to structure community and participatory activities from a learning perspective
- Degree of critical thinking.

THESIS AND INTERNSHIP AT PADOVA UNIVERSITY

THESIS COORDINATOR: Prof. Massimo De Marchi,

massimo.de-marchi@unipd.it

General information

All lecturers of courses of the Padova University program can perform as a supervisor of your thesis, you can find their names in the list below. You are free to contact all of them and propose a personal subject.

According to the agreement among the CCD-STeDe partner universities, a link between thesis and Internship should be established. This relationship may be of different kinds: content, methodology, policy, application etc.

In case you are hosted by the University of Padova, the internship is possible with a company or organization beyond the Italian borders, but the company should accept Padova University's internship agreement.

The Padova university rules of the thesis and internship fulfilment can be found on the Moodle platform (pages "INTERNSHIP" and "THESIS").

LECTURERS LIST



Prof. Massimo De Marchi

massimo.de-marchi@unipd.it

DOMAIN FOR THESIS RESEARCH:

I am the coordinator of research group on [Climate Change Territory Diversity](#) and of the [Laboratory on GIScience and Drones for Good](#).

The interdisciplinary research group deals with climate change, territory and diversity in intertwined, comparative and multi-scale approaches. The research approaches integrate GIS Science with qualitative and participatory methodologies, adopting a no-extractive perspective, empowerment and involvement of the actors who contribute to the research. The research support processes of active citizenship or the construction of public policies (environmental, territorial, cultural) in high conflictive contexts. The research support processes of active citizenship and the construction of public policies (environmental, territorial, cultural) in high conflictive contexts.

The GIScience and Drones for Good Laboratory (D4G) operates both in permanent form and in multiple itinerant forms linked to field activities between Padua and the Amazon and different territories of ecological and cultural diversity in which to apply geographic information technologies to activate participatory action research paths. The D4G laboratory is a member of the national LabGeoNet network of Italian geographic and scientific laboratories (<http://www.labgeonet.it>).

The research group and D4G laboratory deal with the following topics:

- Yasunization of Earth: transition from fossil fuel and unburnable carbon
- Amazon: territory and biodiversity
- Agroecology and territorial transitions
- Inclusive decision-making processes, participation, environmental conflicts and technologies: PGIS and PPGIS, Neogeographies and VGI (Voluntary Geographic Information)
- Evaluation for sustainable development
- Sustainable and community tourism
- Drones 4 Good: use of Unmanned Aerial systems for sustainability and empowerment
- GIScience and urban sustainability
- GIScience in climate justice
- GIScience and sustainability objectives to 2030

Thesis in English / Spanish / French / Portuguese



Prof. Alberto Lanzavecchia

alberto.lanzavecchia@unipd.it

DOMAIN FOR THESIS RESEARCH:

I am honored to work since December 2008 for the University of Padova as lecturer in "Banking and Finance". I was formerly Director of the Master in Asset Management. I am now Coordinator of the International Winter School "[Microfinance in Action](#)" in Nepal and since 2022 I am Coordinator of the Ph.D Programme in "Human Rights, Society and multi-level governance", both organized by the University Centre for Human Rights at the University of Padova (IT).

I believe that the duty of a researcher does not end either at the end of a lecture to students or in a publication in a prestigious magazine read only by "insiders", but continues towards the search for truth, through methodical doubt and tolerance of other people's ideas, and its dissemination to all citizens. This is the only way to contribute to the good and progress of society.

Themes of thesis research:

- Climate change, adaptation strategies and microfinance
- UNESCO MaB and community-based tourism: the role of microfinance
- Microfinance and local development: case studies

Thesis in English.



Prof. Anna Brusarosco

email anna.brusarosco@unipd.it

DOMAIN FOR THESIS RESEARCH:

I am a geographer and my training and professional career is characterized by a strong transdisciplinarity and trans-sectoriality, integrating academic research, extra-academic and activism experiences, linked by a particular focus on local territorial development (mainly, but not exclusively, rural), with an approach based on research-action and a specific interest in the study and promotion of the role of actors and their networks in the construction of the territory.

My ongoing research, as Research Fellow at University of Udine, is focused on active citizenship and participatory approaches in water management, specifically on River Contracts. I've worked and I still collaborate with NGOs and grassroots organizations on development projects and awareness raising, education and communication activities in the fields of climate change, rural development, participatory processes, management of water resources and the right to water, migration (especially environmental), common goods, agroecology, rural tourism.

Examples of specific topics:

- Analysis of projects for sustainable development;
- Grassroots organizations, active citizenship and alternatives to development;
- Participatory approach to territorial development.

Thesis in English



Prof. Salvatore Pappalardo

salvatore.pappalardo@unipd.it

DOMAIN FOR THESIS RESEARCH:

I am part of the research group [Climate Change Territory Diversity](#) and responsible of the [Laboratory on GIScience and Drones for Good](#).

The interdisciplinary research group deals with climate change, territory and diversity in intertwined, comparative and multi-scale approaches. The research approaches integrate GIS Science with qualitative and participatory methodologies, adopting a no-extractive perspective, empowerment and involvement of the actors who contribute to the research. The research support processes of active citizenship or the construction of public policies (environmental, territorial, cultural) in high conflictive contexts. The research support processes of active citizenship and the construction of public policies (environmental, territorial, cultural) in high conflictive contexts.

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- Sustainable and community tourism
- Drones 4 Good: use of Unmanned Aerial systems for sustainability and empowerment
- GIScience and urban sustainability
- GIScience in climate justice
- GIScience and sustainability objectives to 2030

Thesis in English



Prof. Francesca Peroni

francesca.peroni@unipd.it

DOMAIN FOR THESIS RESEARCH:

I am part of the research group [Climate Change Territory Diversity](#) and responsible of the [Laboratory on GIScience and Drones for Good](#).

I am a geographer with an interdisciplinary background, as result from the Master Degree in architecture (IUAV, Venice), the Advanced Master in GIScience and UAV (University of Padua) and the PhD in Human Geography (University of Padua). I mainly worked on topic related to cities, with a focus on urban sustainability. My main research interest is related to soil sealing in spatial planning by adopting a geographic approach. Other research interests related to soil sealing are: urban abandonment, management and perception of urban green spaces, nature-based solutions, urban ecosystem services, and urban agriculture. My research approach is based on quantitative-qualitative methodologies in the framework of GIScience.

Recent research activities are related to climate justice in urban context aimed at investigating how climate change can create spatially differentiated and unequal impacts on the urban terrain and communities.

Proposed research topics:

- Urban sustainability
- Soil sealing and related phenomena (such as abandoned areas, mitigation and compensation processes)
- Climate justice in urban context
- Urban agriculture and news agriculture systems
- Volunteered Geographic Information (VGI) and participatory approaches



Prof. Alberto Diantini

alberto.diantini@unipd.it

DOMAIN FOR THESIS RESEARCH:

I am a geographer, part of the research group [Climate Change Territory Diversity](#), working at the [Laboratory on GIScience and Drones for Good](#).

The interdisciplinary research group deals with climate change, territory and diversity in intertwined, comparative and multi-scale approaches. The research approaches integrate GIS Science with qualitative and participatory methodologies, adopting a no-extractive perspective, empowerment and involvement of the actors who contribute to the research. The research support processes of active citizenship or the construction of public policies (environmental, territorial, cultural) in high conflictive contexts. The research support processes of active citizenship and the construction of public policies (environmental, territorial, cultural) in high conflictive contexts.

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Neogeographies and VGI (Voluntary Geographic Information)

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- Sustainable and community tourism
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- GIScience and urban sustainability
- GIScience in climate justice
- GIScience and sustainability objectives to 2030

Personally, I work on the themes of climate justice, socioenvironmental conflicts and Social Impact Assessment procedures. My current specific research project deal with the concept of Social Licence to Operate in the framework of oil extraction.

Thesis in English



Prof. Alessio Surian

alessio.surian@unipd.it

DOMAIN FOR THESIS RESEARCH:

I am a psychologist who is specialised in social interaction and transformative learning. In relation to territorial planning I am interested in participatory approaches and methods to the decision making process and bottom-up / community engagement in co-constructing knowledge.

I have an activist and practitioner focus on the social and circular economy, housing rights, intercultural and decolonial perspectives.

I am regularly collaborating with the Intercultural Cities network and with educational and housing rights policies in Argentina and Brasil.

Examples of specific topics:

- Participatory community planning;
- Knowledge management in territorial planning and policies;
- Collaborative economies' learning and teambuilding issues.

Thesis in English



Prof. Rosa Arboretti

rosa.arboretti@unipd.it

DOMAIN FOR THESIS RESEARCH:

I'm a statistician and my ongoing research is focused on methodological solutions for the design and analysis of complex experiments or observational studies for the comparison between different treatments (conditions, processes, products) and the study of how input variables can affect one or more output variables (response variables). The complexity may be both in the characteristics of the study and in the nature of multivariate or mixed response variables and in the kind of hypothesis tests (multivariate and directional alternatives, stochastic dominance).

A further research topic concerns the combined use of Design of experiments (DoE) and Machine Learning (ML) techniques for the analysis of Big Data to make predictions and solve classification or product optimization problems. One of the criticism of ML techniques is the difficulty in identifying causal links between variables thus detecting only correlations. Furthermore, ML models tend to work as black boxes in which the chosen algorithm, after a training phase, independently proceeds in the analysis, making it difficult to understand. In order to face these problems, an innovative approach is under study to integrate the DoE methodology with ML modeling.

Interesting applications are in the context of predictive maintenance for the development of fault detection systems, maintenance scheduling and resource optimization.

I welcome theses on these topics. Thesis in English.



Prof. Stefano Pontiggia

stefano.pontiggia@unipd.it

DOMAIN FOR THESIS RESEARCH:

Stefano Pontiggia is a social anthropologist (Ph.D. in Human Sciences with specialization in Anthropology, University of Ferrara 2016; Master's Degree in Anthropological Sciences, University of Milan Bicocca 2009). The author of the book *Revolutionary Tunisia: Inequality, Marginality, and Power* (Lexington Press), Pontiggia conducted ethnographic research in Italy and Tunisia, working both within the academy and for NGOs, associations, and social cooperatives. Over the years, he served as a social worker within the Italian reception system for asylum seekers and as a specialist educator on minors; he also dealt with these issues as a teacher and trainer. He lectured Anthropology at the Verona Academy of Fine Arts and the University of Padua and worked as a post-doc fellow in Anthropology at the Politecnico di Milano between 2020 and 2022. His research interests are state and public institutions, development, power, marginality, migration, and memory. He is also interested in how power relations unfold in space and contribute to its production.

Students interested in having Pontiggia as thesis supervisor must present a research proposal that fits the professor's research interests.

Thesis in English



Prof. Katia Brunelli

katya.brunelli@unipd.it

Lecturer with third-semester teaching

DOMAIN FOR THESIS RESEARCH:

Since September 2017, she has become university researcher at the Department of Industrial Engineering, University of Padua.

Her research topics mainly concern: anti-corrosion and anti-wear surface treatments on aluminium, magnesium and titanium alloys; heat treatments on steels; intermetallics; metal recovery by hydrometallurgical techniques from electronic waste; characterisation of steelworks slags and fumes for their reuse in concrete.

Thesis in English



Prof. Luca Dalla Libera

luca@agenda21.it

Lecturer with third-semester teaching

DOMAIN FOR THESIS RESEARCH:

Luca Dalla Libera is a political economist (University of Trento) with a PhD on Sociology of territory and International Relations (University of Trieste)-He is president of Agenda 21 consulting srl (www.agenda21.it) a consultancy firm working on sustainability from 1998.

He has a long professional trajectory at international level on the issues of community sustainable tourism and advisor for Natural protected areas and local administrations.

Thesis on sustainable community tourism will be combined with internship at Agenda 21 Consulting srl.

Thesis in English