Programme and Module Handbook

Master of Science

Redesigning the Post-Industrial City (RePIC)

Table of contents

1. Study counselling and information services

This Module Handbook presents the curriculum and modules of the RePIC Master Programme. In order to successfully complete the master's programme, students must complete the courses of all compulsory modules and elective modules and have to follow their individually agreed mobility schemes. In the curriculum, the modules are assigned to semesters according to a standard study plan. Students can find the main information on the degree programme on the RePIC webpage and in the Student Handbook.

Helpful addresses on the main counselling topics offered by the contributing universities are listed in the following:

Ruhr University Bochum:

- Student Lifecycle Services: https://einrichtungen.ruhr-uni-bochum.de/en/devision-student-lifecycle-services
- University Library: https://www.ub.rub.de/index.html.en
- Student finance counselling for questions related to financing your studies: https://studium.ruhr-uni-bochum.de/de/studienfinanzierung
- Advisory Centre for the Inclusion of Disabled People: https://www.akafoe.de/inklusion/
- International Office: http://www.international.rub.de/ausland/index.html.de
- Coaching, Workshops & Psychological Advice: https://studium.ruhr-uni-bochum.de/en/node/705
- Central Student Advisory Service - for help and support with individual problems before or during your studies: https://www.ruhr-uni-bochum.de/zsb/

Koç University Istanbul:

- KU Office of Learning and Teaching (KOLT): KOLT offers several services for students, teaching assistants and faculty members to promote effective learning. Some of the services for students include academic tutoring, workshops, and conversation circles.

- KURES- Counseling Service: KURES accompanies students in their process of coming to know and realizing themselves and supporting their personal development.
- Career Development Center: The centre guides students in exploring their self and external awareness while providing tools so they can design, improve, and transfer their career journey.
- Office of International Programs (OIP): https://oip.ku.edu.tr/
- Registrar's and Student Affairs: https://registrar.ku.edu.tr/en/
- Diversity, Inclusion, and Disabled Student Unit in the Office of Dean of Students
- Sevgi Gönül Cultural Center: https://sgkm.ku.edu.tr/
- Sport Facilities: https://sport.ku.edu.tr/
- Suna Kıraç Library: https://library.ku.edu.tr/

University College Cork:
- University Student Counselling and Development provides support for students, staff, and parents during your studies: https://www.ucc.ie/en/studentcounselling/contact/
- Disability Support Service: The DSS in UCC supports students with a wide range of disabilities/ learning difficulties. Further details of supports offered by this service can be found at: https://www.ucc.ie/en/dss/
- The International Office in UCC provides detailed information and a point of access for international students before and during their studies: https://www.ucc.ie/en/international/
- UCC Information Services provides a central repository of all services available to enrolled students. This includes details such as Eduroam Wifi service; Managed Print Service; Student email service and Software.

Erasmus University Rotterdam:
- Student counselling: https://www.eur.nl/en/education/practical-matters/advice-counselling/student-counsellors)
- Confidential counsellor: https://www.eur.nl/en/education/practical-matters/advice-counselling/confidential-counsellor
- Student psychologist: https://www.eur.nl/en/education/practical-matters/advice-counselling/student-psychologists
- Career counselling: https://www.eur.nl/en/education/practical-matters/advice-counselling/career-services
- International Office: https://www.eur.nl/en/education/practical-matters/contact/international-office
- Other useful links:
  - EUR Student Charter: https://www.eur.nl/en/media/2021-07-student-charter-2021-2022
  - EUR integrity code: https://www.eur.nl/en/media/2021-12-code-integrity-eur

University of Liège:
- Student Quality of Life Department (including psychological support, academic orientation Service, students in difficult socio-economic or personal situations, adults continuing studies, pregnant students): https://www.uliege.be/cms/c_9231296/en/student-quality-of-life-department
- Students with specific needs or disabilities: https://www.enseignement.uliege.be/cms/c_9122731/en/en-situation-de-handicap
- Guidance Etude team (personalized remote support: working method, time management...): www.uliege.be/guidance
- International Office: www.uliege.be/international

University of Oulu:

- Information for the new international degree and exchange students: https://www.oulu.fi/en/for-students/new-students-welcome-university-oulu
- Tutor Teachers, Study and Career Counselling Services support for studies (problems with studies, time management, motivation and procrastination, problems with thesis work): https://www.oulu.fi/en/for-students/supporting-your-studies
- Study psychologists support (stress, difficulties in learning, life management and well-being): https://www.oulu.fi/en/for-students/supporting-your-studies/study-psychologists
- Self-learning materials, webinars and workshops supporting study technics, time management, well-being etc.: https://www.oulu.fi/en/for-students/supporting-your-studies/study-skills-and-competences
- Accessibility issues: Study psychologists can make recommendations for individual arrangements for studies: https://www.oulu.fi/en/for-students/supporting-your-studies/accessibility-studies.

University of Zagreb:

- Student Counselling and Support Services: http://www.unizg.hr/homepage/international-exchange/exchange-students/student-services/student-counselling-and-support-services/
- Academic Advisors (contacts) at faculties/academies: http://www.unizg.hr/homepage/international-exchange/exchange-students/student-services/academic-advisers-contacts-at-facultiesacademies/
- Housing: http://www.unizg.hr/homepage/international-exchange/exchange-students/student-services/housing/
- ICT Services & Facilities: http://www.unizg.hr/homepage/international-exchange/exchange-students/student-services/ict-services-facilities
- Exchange students – all supporting services are listed at: http://www.unizg.hr/homepage/international-exchange/exchange-students/student-services/
- The Office for Students with Special Needs offers support to students with disabilities: http://www.unizg.hr/homepage/international-exchange/exchange-students/student-services/office-for-students-with-disabilities
- International Relations Office: http://www.unizg.hr/homepage/international-exchange/exchange-students/student-services/international-relations-office/
- University Sports Services: http://www.unizg.hr/homepage/international-exchange/exchange-students/student-services/university-sports-services/
- Student's Health & Well-Being: http://www.unizg.hr/homepage/international-exchange/exchange-students/student-services/students-health-and-well-being/
- Student Organizations: http://www.unizg.hr/homepage/international-exchange/exchange-students/student-services/student-organizations/

University of Deusto:

- Deusto Services: https://www.deusto.es/en/home/campus-life/services
- Administrative Procedures: https://www.deusto.es/en/home/campus-life/academic-information/administrative-procedures
- Deusto Global: https://www.deusto.es/en/home/international/deusto-global
- Deusto Campus Life: https://www.deusto.es/en/home/campus-life
- University Ombudsperson: https://www.deusto.es/en/home/we-are-deusto/team/university-ombudsperson

2. Curriculum and exemplary study paths

The Joint Master of Science in Redesigning the Post-Industrial City (RePIC) is a two-year, English-taught Master programme with 120 ECTS at Level 7 EQF offered by eight European Partner Universities. These eight European Partner Universities forming the European University of Post-Industrial Cities (UNIC) are:

- Ruhr-Universität Bochum (RUB), Germany
- University College Cork (UCC), Ireland
- University of Deusto (UDeusto), Spain
- Erasmus University Rotterdam (EUR), Netherlands
- Koç University (KU), Turkey
- University of Liège (ULiège), Belgium
- University of Oulu, (UOulu), Finland
- University of Zagreb (UniZG), Croatia

The RePIC curriculum (see Figure 1) is based on a strong orientation on learning outcomes. In accordance with the 2016 UNESCO International Bureau of Education Curriculum Guidelines, RePIC supports students and offers guidance to develop:

(1) the knowledge and understanding (theoretical and methodological approaches),
(2) the intellectual, practical, and transferable skills ('hard' research methods and techniques skills as well as 'soft skills' such as intercultural and interdisciplinary communication), and
(3) the professional values (research integrity and ethics) required for successful completion of the programme.

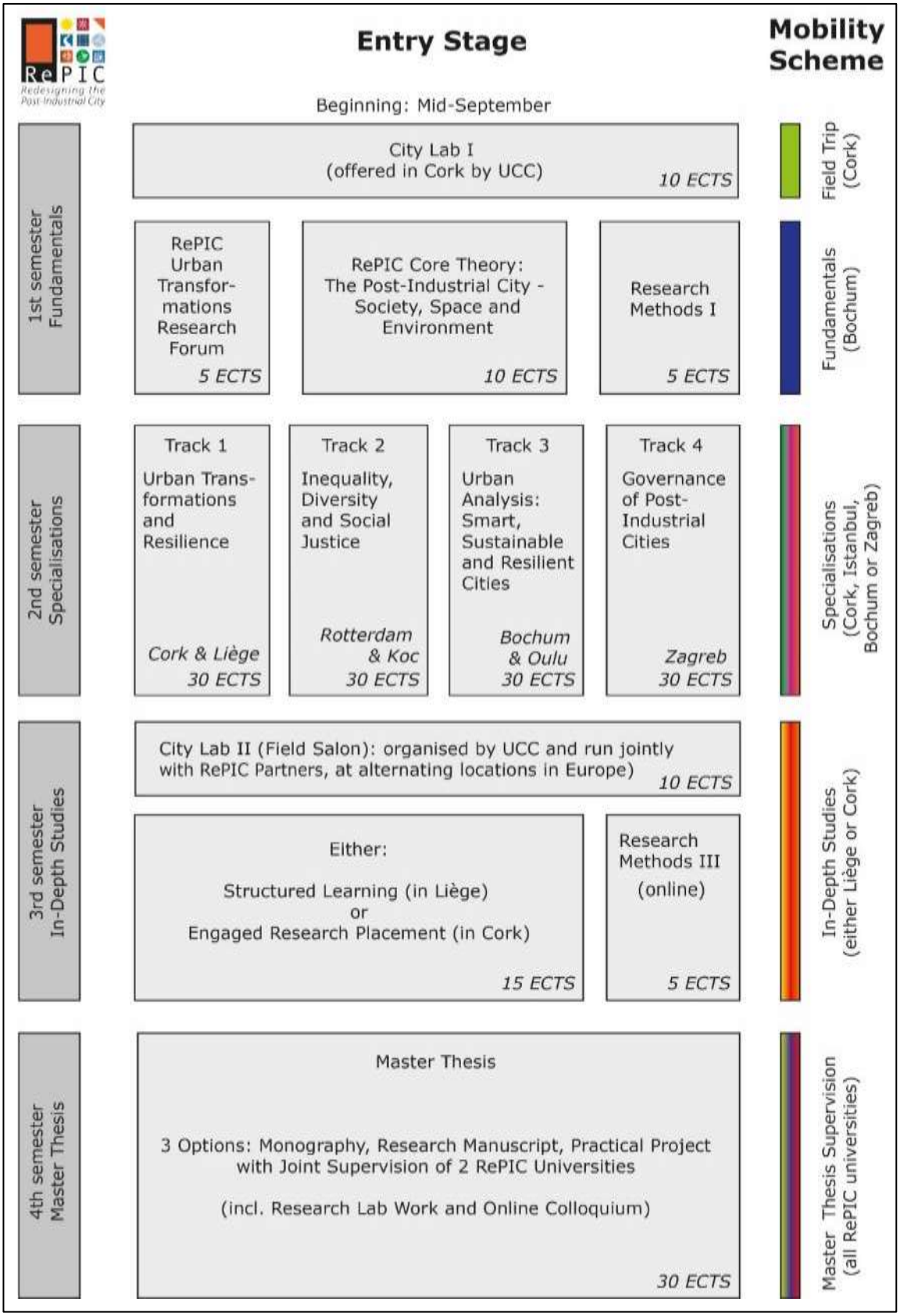
The key learning outcomes of this joint programme are:

(1) to introduce students to multidisciplinary views of the post-industrial city and the differentiated impact of post-industrialism on urban societies, and
(2) to enable students to develop perspectives for the sustainable transformation of the post-industrial city through engaged research practices.

RePIC understands the post-industrial city as a complex system that is characterised by physical, political, and historical development paths, ecological limits, and dynamic social, economic, and cultural vectors. Viewing the city as an experimental living laboratory, RePIC students will explore the potential for the post-industrial city to act as a milieu for continuous civic immersion asking how it can be cultivated to inform debates around urban sustainable transformation and circular economies as well as the construction of social identities and experiences of cultural dissonance. Based on this perspective, adopting participatory approaches and methods such as City Labs, Urban Field Salons, and Engaged Research Practices that foster public-private-academic-societal partnerships, RePIC's vision is to develop a new network of urban thinkers with the capacity to contribute to future-oriented, avant-garde thinking on the revitalisation of the post-industrial city.

Building on the complementary strengths of the vibrant UNIC partnership, RePIC will provide for a life-changing physical and virtual student mobility experience and serve as a catalyst for innovative learning and action practices including structured project collaboration, social design studios, digital storytelling, and immersive design fictions. The ambition is to build a unique knowledge and innovation community committed to the co-creation, co-design, and co-production of more sustainable urban futures.

Figure 1: RePIC curriculum and mobility scheme



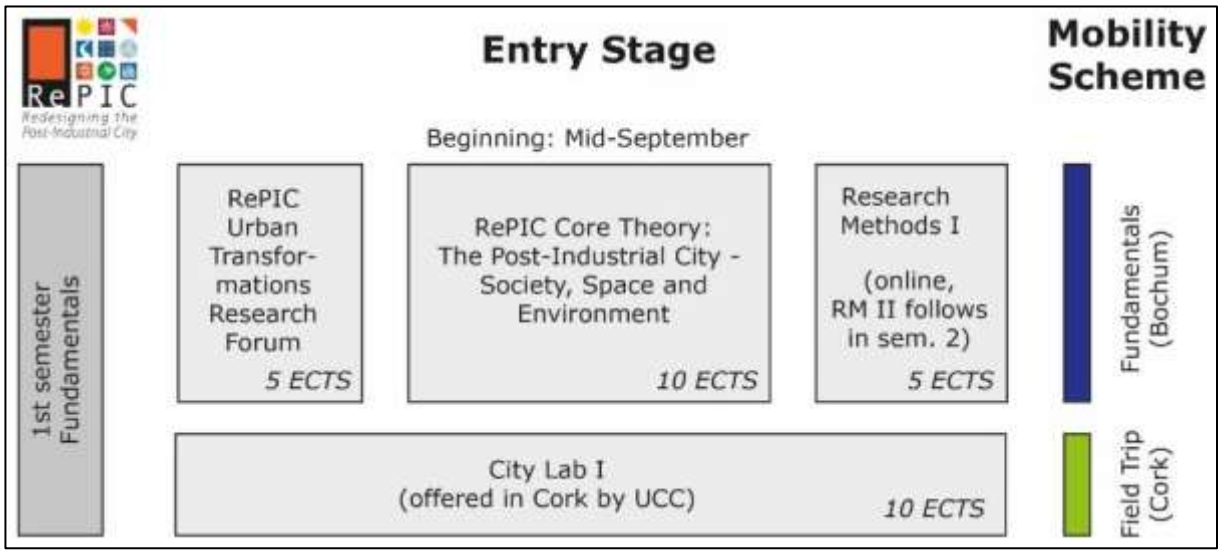
Semester 1

During the first semester, students complete a core curriculum jointly developed by all Partner Institutions to lay the foundations for studying RePIC. Students will be equipped with the basic tools required to understand the study of the post-industrial city. Modules will provide a substantial knowledge base that is facts and ideas as well as the theories that connect them, in order to foster a conceptual framework for analysing the post-industrial city.

The semester kicks-off with a field trip to Cork, Ireland, where UCC conducts a City Lab in mid-September. Here, participants will explore the potential for the post-industrial city to act as a milieu for continuous civic immersion asking how it can be cultivated to inform cultural and social dissonance. Underlining the wider ambitions of the Course, Learners and Researchers will actively assess challenges around the uses of public space such that it informs current understandings of social and public discourse. The adopted mode of the inquiry involves experimental ethnographic and service-learning approaches, which requires Learners to activate ideas of public and civic engagement. This will be achieved through collaboration with a number of external collaborators and partner(s) – who will range from community groups, academia, and specialist researchers, which involve team-based approach. Apart from the achieved skills and insight, this didactic concept serves to form a joint cohort and to interconnect RePIC staff and students.

After completion of the City Lab I module, students return to RUB (Bochum, Germany) where the RePIC Core Theory and RePIC Research Forum modules are delivered face-to-face. Furthermore, the Research Methods I module aims to enable students to assess research work and to be able to make decisions about research design. It is designed as an asynchronous online classroom to give students more individuality in their learning progress.

Figure 2: RePIC programme entry stage (1st semester)



Semester 2

The second semester enables the students to choose one of four study tracks based on the fundamentals acquired in Semester 1. Specific contents from the first semester is deepened in each track. The four tracks each have a host university (location of the students in the semester). This host university is supported by at least one Partner University by means of teaching contributions. In addition, all four tracks contain method-oriented contents (Research Methods II), either as specifically designated research methods modules or as integrated part of content modules. The four tracks are:

Track 1) Urban Transformations and Resilience (offered at University College Cork in collaboration with University of Liège)

Track 2) Inequality, Diversity and Social Justice (offered at Koç University, Istanbul, in collaboration with Erasmus University Rotterdam)

Track 3) Urban Analysis: Smart, Sustainable and Resilient Cities (offered at Ruhr-University Bochum in collaboration with the University of Oulu),

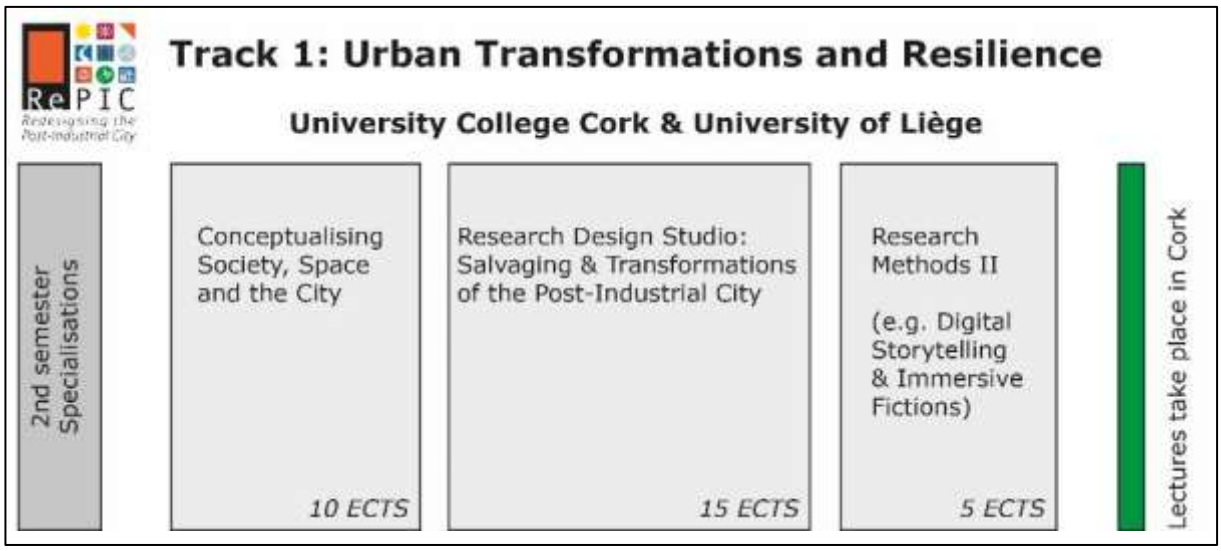
Track 4) Governance of Post-Industrial Cities (offered at the University of Zagreb in collaboration with University of Deusto).

The four tracks are presented in Figures 3-6 and an exemplary study plan curriculum is depicted in Figure 9.

RePIC Track 1: Urban Transformations and Resilience

Adopting critical and experimental thinking practices and the theme of 'salvage' (of space, form, material, landscape), this track will consider critical ideas that deal with issues and questions of contemporary relevance for the city. It will question the continuous challenges within the historical and post-industrial city (preservation, identity, access) and the aspirations of a contemporary urban conglomeration (infrastructure, climate, inclusion). It will position the socio-spatial tensions in post-industrial landscapes as representing a unique opportunity to test multiple latencies that these places hold – distinct temporal, social, technological, and cultural fields – and questions how they become subject to a process of transformation or 'renovation'. The track will adopt new and innovative approaches towards engagement (co-design, participation-based, live projects) and use new representational modalities to explore the physical landscapes and built infrastructures within the post-industrial city. Working with a community of local authors and actors, it will act to critically resituate and redefine the city in surprising and new ways. Including a Seminar Series, it draws upon a range of key thinkers on the city and demonstrates the significance of innovative and interpretive concepts as the basis to generate creative and critical insights into contemporary urban and cultural issues. Attention is given to the relationships between social theory and research design in contemporary urbanism, human geography, and related areas. Through the research methods module II, students will look at interactions between real world spaces and digital mediations of these spaces – the aim of which is to assist the learner acquire a wide range of critical and creative skills. This will be facilitated by a variety of experts from various disciplines using digital filmic and other immersive research techniques.

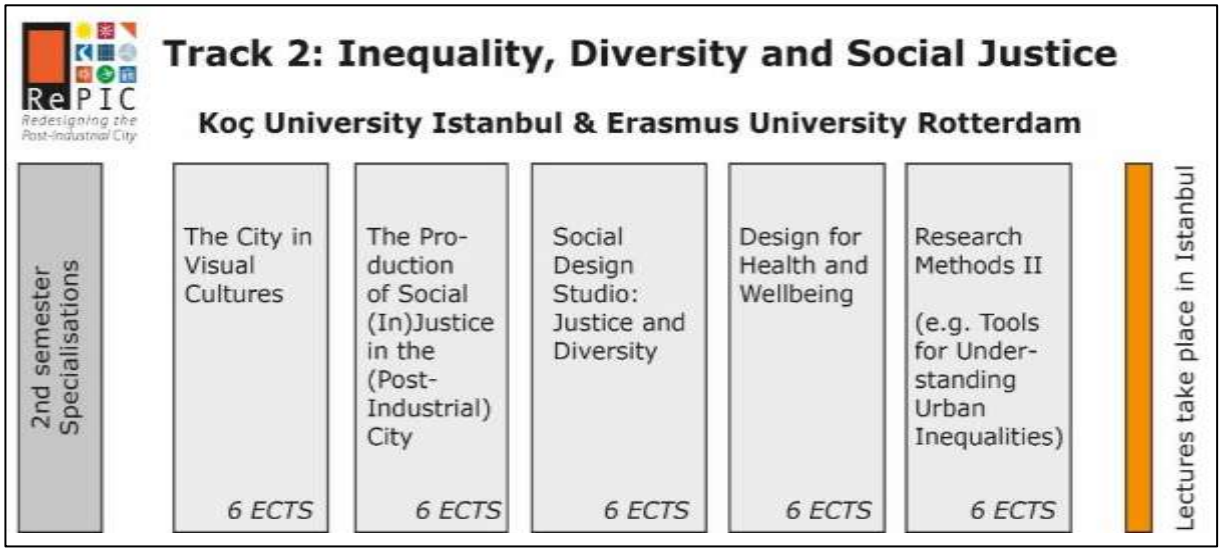
Figure 3: RePIC Track 1 (2nd semester)



RePIC Track 2: Inequality, Diversity and Social Justice

Challenges and problems faced by post-industrial cities are often multidimensional societal problems revolving around a complex interplay between a variety of inequalities, diversities and historical path-dependencies that are resilient to (policy) change. Building on the general conceptual and methodological introductions from Semester 1, this track will focus on recognizing, understanding, and explaining inequalities and diversities and on designing innovative approaches to improving social justice in post-industrial cities. In a series of five modules, students will analyse a variety of inequalities and diversities in post-industrial cities, get acquainted with the main conceptual and theoretical tools for understanding these inequalities, develop methodological skills for the analysis and design of solutions to increase social justice and to actively engage with actors in urban environments to experiment with challenges and opportunities in real-world settings to better contextualize design for diversity.

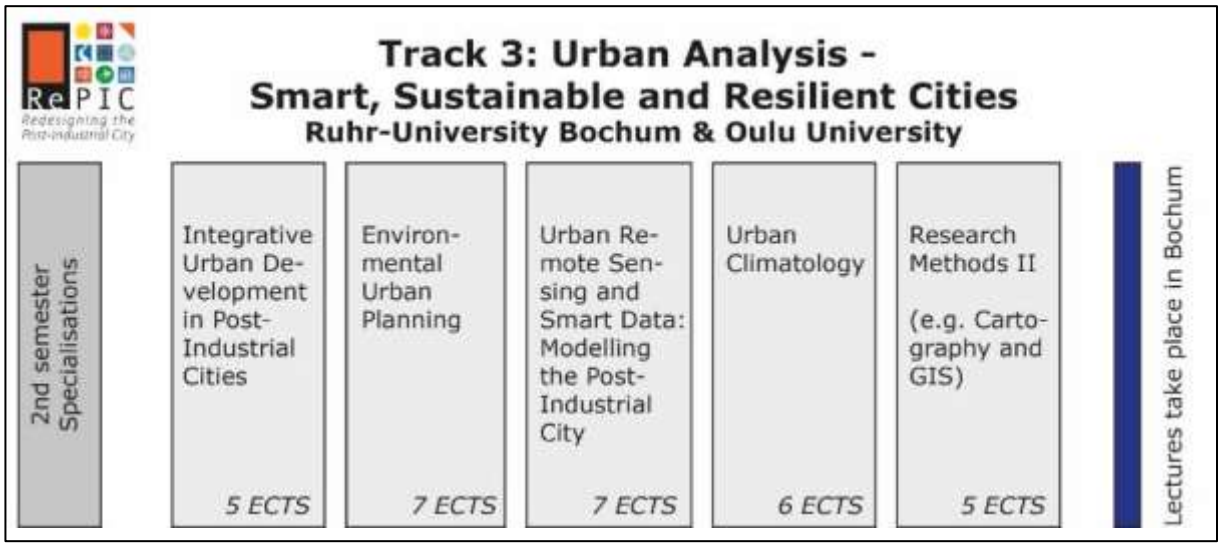
Figure 4: RePIC Track 2 (2nd semester)



RePIC Track 3: Urban Analysis: Smart, Sustainable and Resilient Cities

Post-industrial cities, understood here as coupled human-environment systems in a transformation process, are subject to both challenges and opportunities for attaining the United Nations' Sustainable Development Goals. The global mega-trend of urbanization expected to further increase the urban share of the world population from about 55 percent in 2018 to 68 percent by 2050, substantial urban transformations are urgently required to attain those goals. Understanding transformations of metropolitan regions, and navigating integrated transformations towards more sustainable pathways, is therefore of high societal relevance. Thus, sustainable transformation processes in post-industrial cities require expert knowledge to analyze modern developments of smart, green, and resilient spatial patterns, gradients, connectivity, and their dynamics. The track focuses on methods of geography including Geoinformatics, Urban Ecology, and Planning Science Methods. Bringing together the disciplines of Geography and Architecture, the focus is on multiscalar perspectives addressing small-, medium- and large-scale research topics in a multidisciplinary way.

Figure 5: RePIC Track 3 (2nd semester)

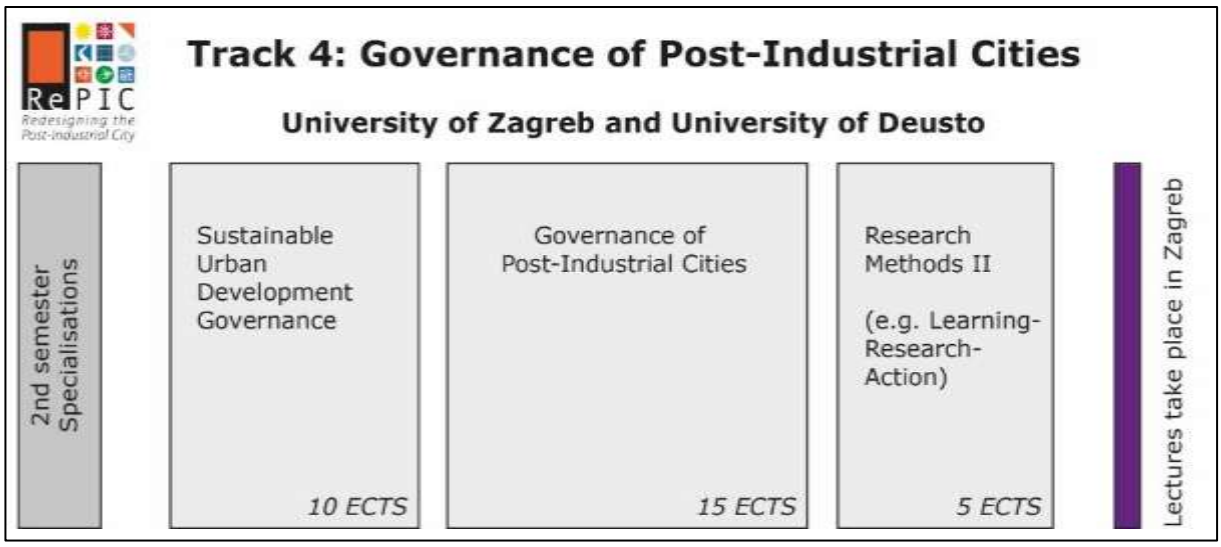


RePIC Track 4: Governance of Post-Industrial Cities

This track provides the theoretical and practical accommodation of sustainable governance in urban development processes. It is divided into three modules carried out through interdisciplinary collaboration of faculties of law, architecture, and urban planning. The first module aims to train students in the management and knowledge of the theoretical foundations, principles, criteria and strategies, new challenges and problems related to the different areas that make up the concept of sustainable urban development: environmental, economic, social, and cultural development. Providing students with the foundations to critically assess the interrelationships between environmental, cultural, economic, and social processes in the production and development of a resilient habitat, endowed with identity, quality of life and opportunities framed by a holistic, multidimensional, cross-sectoral and cross-cutting vision.

The second module aims to train students in the management and knowledge of the theoretical foundations, principles, criteria and strategies, new challenges and problems related to the different areas that make up the concept of urban governance, particularly with administrative and institutional aspects of local self-government in urban areas, implementation of EU Cohesion Policy in urban setting, local/urban public services (services of general interest), and management of urban migrations. The third research module addresses the need to shape a governance model for the achievement of the proposed sustainable urban development. It aims to provide students a method of analysis, design, and evaluation of a governance model for sustainable urban development, based on action research. The application of city governance from the reality of projects, in institutional, business, and associative practice, will be worked on. Reviewing instrumental aspects, such as the use of specific tools linked to the management of city governance projects, citizen participation in these processes, the world of data and impact assessment.

Figure 6: RePIC Track 4 (2nd semester)



Semester 3

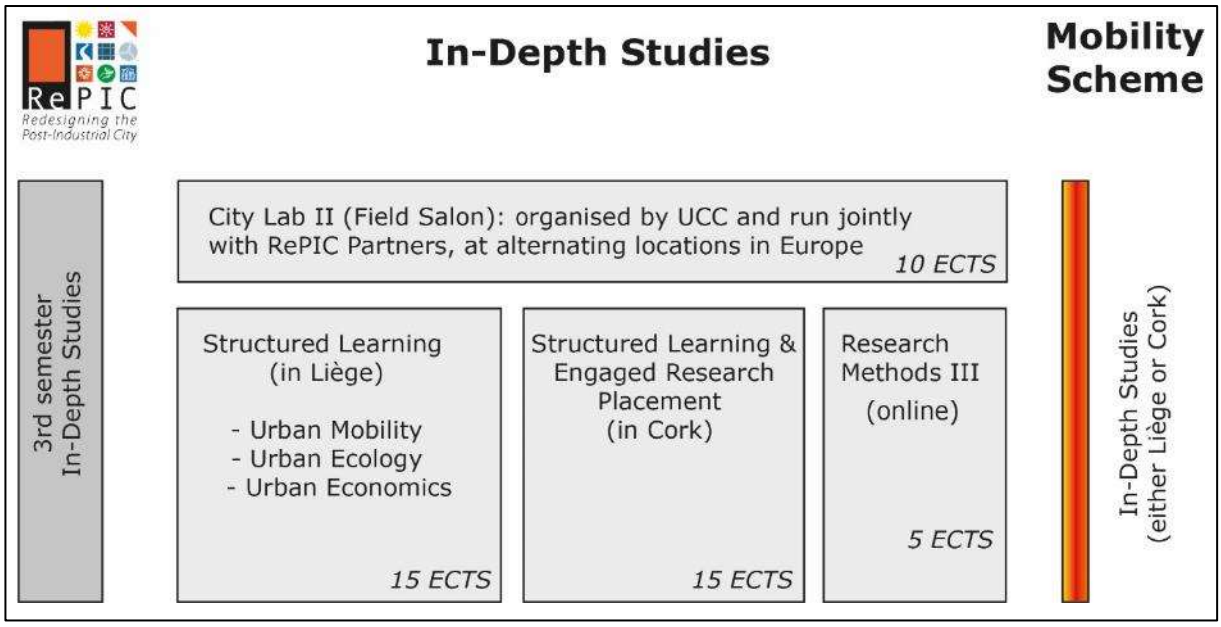
To further strengthen the diversity and vitality of learning modalities that are central to the RePIC programme, students will be offered two options for further specialization in Semester 3. One half of the cohort will be hosted by University College Cork, the other half by the University of Liège. Whereas the focus at UCC is on structured learning activities and engaged research placements, Liège offers in-depth studies in three domains related to the transformation of the post-industrial city: urban mobility, urban ecology, and urban economics. By the middle of the second semester at the latest, students must decide whether to continue their studies at University College Cork or the University of Liège. If too many students choose one option, the programme coordinators will decide on a selection taking social and disadvantage-compensating regulations into account.

In order to provide students with a greater feeling of inclusiveness, promote collaboration, and enhance academic performance, two modules will be offered for the entire cohort. The Urban Field Salon in early October (City Lab II) brings the entire cohort together in a joint learning activity to directly experience, observe, research, interpret, and communicate the manyfold characteristics of post-

industrialism as it is expressed in neighbourhoods, public institutions, organisations, firms and the local environment in the European City. The engagement with local partners will secure that the field-class will also be reported in the local and regional press, which offers another opportunity to inform the public about the study programme and its unique content. The community aspect is central to collaboration and support, stimulating creative ways in which specific community needs and issues can be met, contributing to more prosperous and liveable places, and, above all, improving the social integration and sustainability of communities.

Moreover, the continuation of the research-oriented method module (on an advanced level) also contributes to an individualization and strengthening of the student profiles and preparation of the final thesis work. Research Methods III is designed as an International Seminar to further develop students' understanding of research methods, introducing more complex forms of quantitative, qualitative, geospatial, design and mixed methods approaches. It will equip students with a detailed understanding of advanced research designs to support their ability to evaluate the utility of different research designs and to support their own independent research projects.

Figure 7: RePIC in-depth studies (3rd semester)

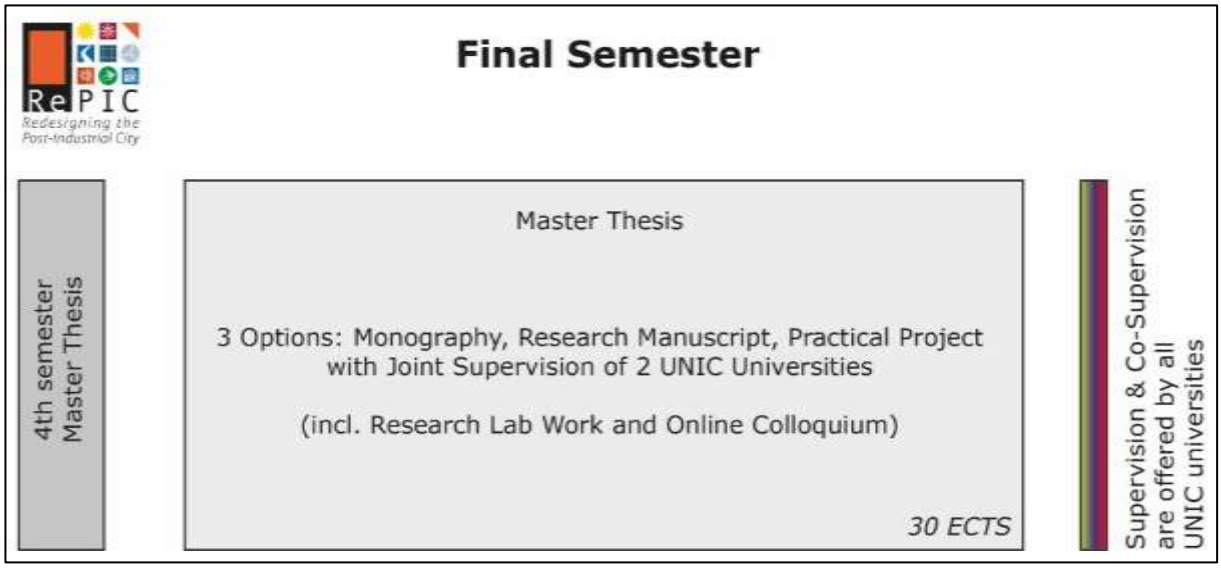


Semester 4

The fourth semester is the final semester of the two-year programme. The key element of this semester is the master thesis. Considering the multidisciplinary nature of the programme, the students can choose among three types of master thesis: a traditional dissertation, a research manuscript aiming at publication in an academic journal, a practical project accompanied by documentation and written analysis. The master thesis can be supervised in a research lab at any of the Partner Universities. The thesis will be co-supervised by a colleague from a second RePIC University so that a joint supervision is guaranteed. The master thesis is also coupled with a final presentation of the master thesis (20 min. presentation, plus 10 min. discussion). The thesis is presented in a cross-border online format attended by staff members from all contributing universities and all RePIC students. Students are encouraged to

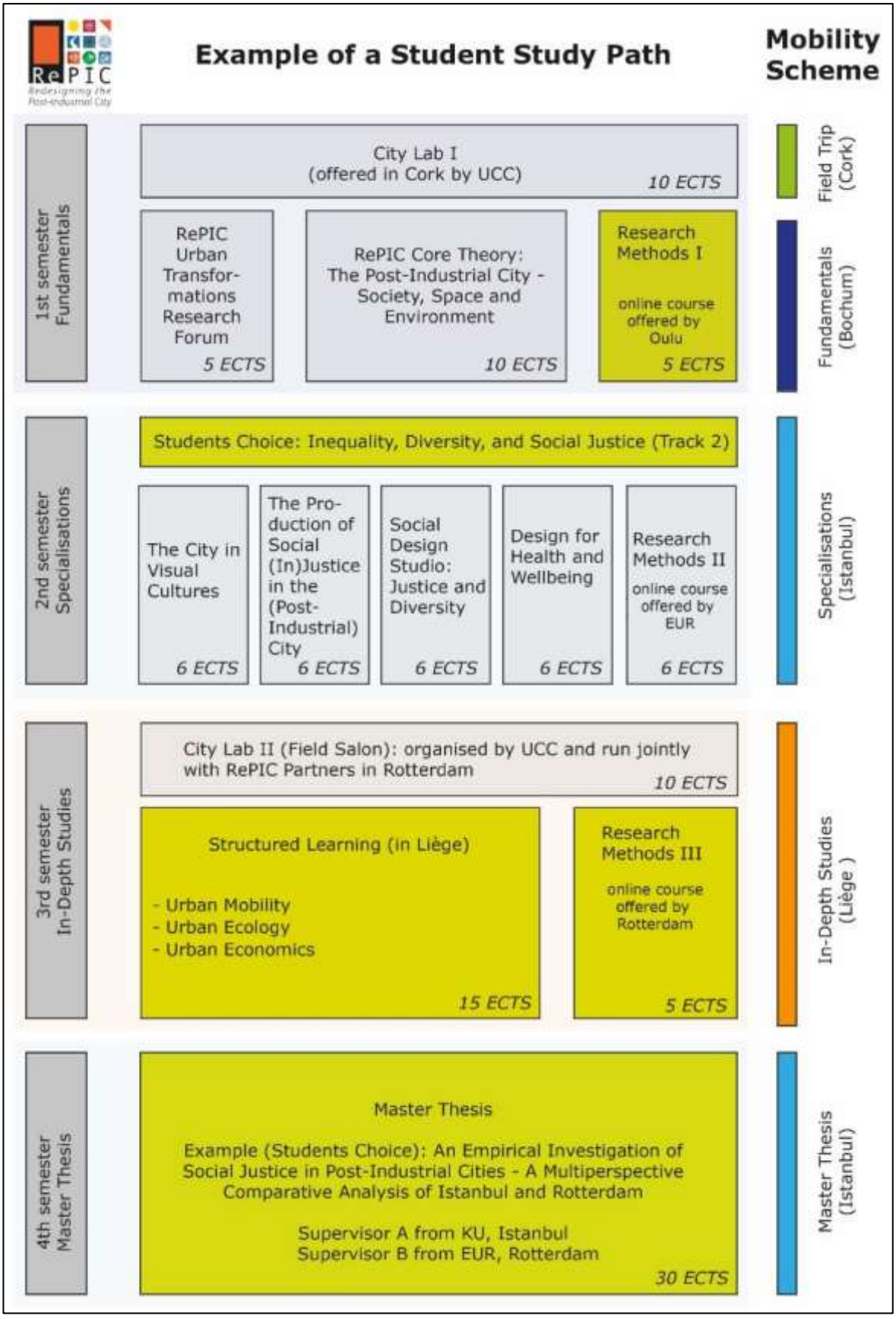
arrange a self-organised Graduate Exhibition of their thesis projects, in a combination of presence and online, for the public of the cities.

Figure 8: RePIC final semester and master thesis (4th semester)



RePIC comprises a standard study period of 4 semesters (30 credits points each) and a total workload of 120 credit points (ECTS). Figure 9 provides a visual impression of a sample study path, including the corresponding mobility scheme. It shows one of the many possible options. The courses based on a student's individual choice are highlighted in yellow. Personal mentors monitor each study track to ensure a timely completion of the study programme.

Figure 9: Example of a Student Study Path in the RePIC programme



3. Didactic concept of the master programme

RePIC's didactic concept is based on a strong orientation on learning outcomes. Learning, teaching and research is interconnected, and learner centred. The underlying concept of competences differentiates between

- Subject-specific competences: "knowledge and understanding"
- Interdisciplinary/generic competences: "ability and knowledge development"
  - Instrumental competence: "using instruments"
  - Systemic competence: "knowing how things work"
  - Communicative competence: "communicate appropriately in relation to goals and occasions"

The RePIC programme involves practitioners in many of its modules. That means that practical-applied components and methodological training in the development of solutions for urban challenges (e.g., urban planning impact assessment methodology with modern digital tools) are an integral part of RePIC. In the longer-term, our vision is to create a "Community of Practice" for Learners through an association with avant-garde Visiting Scholars/ Practitioners/ Theorists/ Urban Actors who could visit and review the student's progress; act as an external advisor-mentor; create research links to cutting edge new practices; create future employment possibilities.

Teaching formats comprise traditional formats such as lectures, readings, discussions, and innovative student-activating formats like Design Studios, City Labs, and Field Salons. Some of these courses are taught by a team of teachers from the partner universities. The teaching is delivered face-to-face, hybrid or completely online. The overall learning and teaching approach is student centred. Therefore, we use methods like design-based learning, peer learning, and challenge-based learning.

Part of the joint curriculum is the integrated mobility of students. All students start together in the first semester, in the second semester they focus on one of four tracks. Depending on the track chosen, they move to another university. Each track is offered jointly by two partners. In the third semester, the students can decide on in-depth studies or a practical training in the profession or in research. Here, they choose either the University of Liège or University College Cork as host university. Through this integrated mobility scheme, the students not only get to know different examples of post-industrial cities as locations of the partners, but also can deepen their intercultural competences.

The master programme consists of compulsory modules and elective modules and the master thesis. A module is a unit of teaching and learning that is self-contained in terms of content and time and that is successfully concluded by passing the corresponding module examination. The "European Credit Transfer and Accumulation System" (ECTS) applies. The number of ECTS that can be obtained the successful completion of the respective module. One ECTS credit point in RePIC corresponds with a study workload of approximately 27 hours.

Module exams are taken in all modules of the degree programme. The forms of examination are competence-oriented and therefore aligned with the learning outcomes and the content of the modules.

4. Important information from the examination regulations

There are joint examination regulations for the degree programme, which are binding for all students in RePIC. These regulate the organisation of student mobility within the programme, examination performance, types of assessments, passing and retaking of modules and module examinations, compensation for disadvantages and statutory periods of protection, absence, withdrawal, deceit, infringement of regulations, scope of the master examination, admission to the master thesis, acceptance, assessment, and retaking of the master thesis and passing the master programme.

The local registration and participation regulations apply to the actual conduct of examinations of modules delivered. The local registration and participation regulations of the actual host university at which the student is present when taking an exam are applicable.

5. Miscellaneous

In addition to the curriculum, the students are regularly invited to research and practically oriented lectures organized at the co-operating universities and their partners. This establishes an early link with potential employees or placement companies. Examples in Germany are lecture series offered by the University Alliance Ruhr in the field of Metropolitan Studies ("Ruhr Lecture", https://metropolenforschung.uaruhr.de/outreach/ruhr-lecture/) and GIS related lectures organized by the Interdisciplinary Centre of Geo-Information (IZG) at RUB, in cooperation with the German Cartographic Society (DGfK e.V.) (http://www.izg.rub.de/veranstaltungen.html).

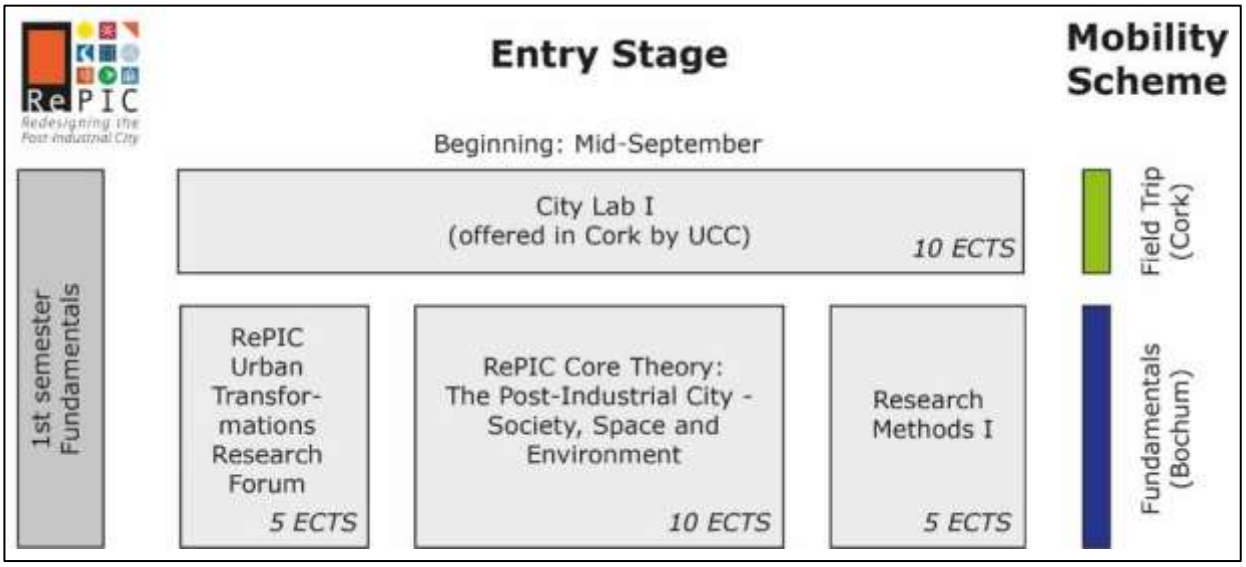
6. List of Modules

Module #	Module title	ECTS	Mode of instruction	Responsible partner
SEMESTER 1				
1-1	City Lab I	10	f2f	UCC
1-2	Research Methods I	5	Online	RUB
1-3	RePIC Core Theory: The Post-Industrial City - Society, Space and Environment	10	f2f	RUB
1-4	RePIC Urban Transformations Research Forum	5	Online	RUB
		30		
SEMESTER 2				
Track 1	**Urban Transformations and Resilience (@UCC)**			
2-1-1	Conceptualising Society, Space and the City	10	f2f	UCC
2-1-2	Research Design Studio: Salvaging & Transformations of the Post-Industrial City	15	f2f	UCC
2-1-3	Research Methods II: Digital Storytelling & Immersive Fictions	5	f2f	UCC

		30		
Track 2	**Inequality, Diversity and Social Justice (@UKoc)**			
2-2-1	The City in Visual Culture	6	f2f	UKoç/EUR
2-2-2	The Production of Social (In)Justice in the (Post-Industrial) City	6	f2f	UKoç/EUR
2-2-3	Social Design Studio: Justice and Diversity	6	f2f	UKoç/EUR
2-2-4	Design for Health and Wellbeing	6	f2f	UKoç/EUR
2-2-5	Research Methods II: Conceptual and Methodological Tools for Researching Post-Industrial Cities	6	f2f	UKoç/EUR
		30		
Track 3	**Urban Analysis - Smart, Sustainable and Resilient Cities (@RUB)**			
2-3-1	Integrative Urban Development in Post-Industrial Cities	5	Online	UOulu
2-3-2	Environmental Urban Planning	7	f2f	RUB
2-3-3	Urban Remote Sensing and Smart Data: Modelling the Post-Industrial City	7	f2f	RUB
2-3-4	Methods of Urban Climatology	6	f2f	RUB
2-3-5	Research Methods II	5	Online	UOulu
		30		
Track 4	**Governance of Post-Industrial Cities (@UniZG)**			
2-4-1	Sustainable Urban Development Governance	10	f2f	UniZG/UDeusto
2-4-2	Governance of Post-Industrial Cities	15	f2f	UniZG
2-4-3	Research Methods II: Methodological Approaches and Tools for Understanding the Governance of Post-Industrial Cities	5	Online (incl. 2 weeks flying faculty in presence)	UDeusto
		30		
SEMESTER 3				
3-1	City Lab II (Field Salon)	10	f2f	UCC
3-2	Research Methods III: Seminar in Advanced Research Methods	5	Online	EUR
UCC Track				
3-3	Structured Learning and Engaged Research Placement	15	f2f	UCC
ULiège Track				
3-4	Structured Learning	15	f2f	ULiège
		30		
SEMESTER 4				
4-1	Master Thesis	30		All
Additional Electives				
AE-1	Language Courses	None		All

7. Module Descriptions

Semester 1



City Lab I					
Module number 1-1	**Credits** 10 CP	**Workload** 270 h	**Term** 1st Semester	**Frequency** winter term	**Duration** 1 semester
Lectures a) Seminar(s) (30 h) b) Workshop Tutorials (120 h)			**Contact hours** 150 h	**Self-Study** 120 h	**Group size** 60 students
Prerequisites All students participating in the module are enrolled as master students.					
Learning outcomes After successful completion of the module, students will • be able to explain complex urban and civic conditions in the post-industrial city using trans-disciplinary approaches. • be able to analyse and record distinct urban and civic fields, using digital techniques and hybrid media forms to visualise their findings • be able to synthesis key thematic and research ideas within a Group • be able to co-create proposals that address a societal challenge together with city actors and stakeholders. • be able to summarise and assess the potential of collaborative research methodologies • be able to deploy novel approaches to disseminate results to specialist and public audience groups • be able to create a reflective research statement, making connections across the academic and applied service-learning components of the module					
Content Viewing the city as an experiential living laboratory – a diverse civic space of multiple ecologies, dwelling, culture, capital, discussion, and participation – this module will investigate how the post-Industrial city is understood as a multiplicity that is entwined by physical, political, and historical limits and dynamic social, cultural, and ecological vectors. Using applied service-learning modalities in parallel with experimental and novel digital techniques, the aim of the module is to understand the tensions and intersections between the occupation of urban places and the flows that move around it. Addressing a key thematic issue in the UNIC City Lab challenge areas and aligning with the EU Urban Agenda, the problem-solving approach of this City Lab will comprise of three research phases: (1) Identifying challenge(s); (2) Co-creating solution(s); (3) Creating and implementing					

strategy(s).
During studio-based workshops and interacting with city stakeholders and public actors, we will consider the patterns of public space and the complex set of actions and transformations that define it – exploring and initiating examples of urban, social, environmental, economic, and community innovation as co-created responses to identified challenges and opportunities within the post-Industrial city. Attempting to determine and conceptualise the constitution of places, the research findings will disrupt normative urban design orthodoxies and through experimental participatory modalities will serve as a catalyst for learning and action.

Teaching methods/formats
Seminars, workshop, studio-based learning, project work, group work.

Mode of assessment
Continuous Assessment: 2 Coursework submissions. [1] Visual Dossier: 70% [2] Group Seminar Presentation: 20% [3] Reflective Journal: 10%

Requirement for the award of credit points
The awarding of credit points requires the passing of both Coursework submissions [1], [2], and [3]. In relation to the Seminar, it is understood to include the design of the Group seminar presentation – which includes critical discussion and feedback which must be incorporated into the final submission of the Visual Dossier. A component of the final research will be published on the open-access UNIC European Open Case Repository.

Module applicability in other degree programmes
N/A

Weight of the mark for the final score
10/120

Module coordinator and lecturer(s)
Dr Jason O'Shaughnessy, Dr Denis Linehan, Ms Una Daly, Dr Martin Galvin (UCC)

Further information
SDGs addressed in the module include: SDG 10 Reduced Inequalities, SDG 11 Sustainable Cities and Communities, SDG 16 Peace, Justice and Strong Institutions, SDG 17 Partnership for the Goals.
Research Themes: Societal challenges; integrated knowledge; civic engagement; service-learning modalities; design-thinking; new urban historiographies; urban improvisation strategies.

Research Methods I: Quantitative, Qualitative and Geospatial Methods & Data Literacy

Module number 1-2	**Credits** 5 CP	**Workload** 135 h	**Term** 1st Semester	**Frequency** winter term	**Duration** 1 semester
Lectures Asynchronous online seminar			**Contact hours** 0 h	**Self-Study** 135 h	**Group size** 60 students

Prerequisites
All students participating in the module are enrolled as master students.

Learning outcomes
After successful completion of the module, students will
- be able to understand the principles and practices of different research methods relevant to the study of the post-industrial city
- be able to critically evaluate underpinning values in research methodologies and are aware of research ethics
- reflect on the developments of establishing an **In**frastructure for **Sp**atial **I**nformation in the Eu**r**op**e**an Community (INSPIRE)
- be able to identify up-to-date geospatial data resources offering open data for answering modern research questions in post-industrial cities
- be able to reflect and critically evaluate the properties and potentials of these geospatial data resources and infrastructures (Geospatial Data Literacy)
- be able to read, process and apply geospatial data, including geospatial data analysis in open-source Geographic Information Systems (GIS), the creation of digital 2D and 3D maps and interactive web-cartographic applications.

Content
This course provides a thorough introduction to the principles and practices of research relevant to the study of the post-industrial city, including quantitative, qualitative, geospatial data, design and mixed-methods approaches. It reviews the main features of the methods and enables students to understand the general strengths and weaknesses of each. The aims are that students will: explore the qualities of the different research methods approaches as well as their underlying knowledge claims; reflect upon research issues, particularly ethics, relevance, validity, and reliability; develop the skills required to disseminate their own research plans and findings. Students will also be introduced to current developments of digital data, with a specific focus on geospatial data,

and their organization in digital data infrastructures. These developments built on the INSPIRE (2007/2/EC) directive adopted and published by the European Union in 2007 as an EU-wide contribution to (geospatial) data harmonization and interoperability, guided by environmental data themes. In the sense of a sound Geospatial Data Literacy (GDL), students are expected to get to know (open) data resources and to critically reflect on their characteristics and potentials for the analysis of the multidisciplinary challenges faced by the post-industrial city. This training of GDL is accompanied by practical exercises of geospatial data analysis and cartographic visualizations of results in 2D and 3D. Visualization includes state-of-the-art concepts of user-oriented and cognition-oriented adaptation, with the aim of creating suitable media for different fields of engaged research practices, such as maps and 3D-animations used to support participatory planning and decision-making processes.

Teaching methods/formats
Online course (online lectures, self-guided learning, discussion forums and regular communication, multimedia and interactive activities)

Mode of assessment
Practical project

Requirement for the award of credit points
Passed exam

Module applicability in other degree programmes
N/A

Weight of the mark for the final score
5/120

Module coordinator and lecturer(s)
PD Dr. Dennis Edler (RUB)

Further information
SDGs addressed in the module include: SDG 4 Quality Education, SDG 5 Gender Equality

RePIC Core Theory: The Post-Industrial City – Society, Space and Environment					
Module number 1-3	**Credits** 10 CP	**Workload** 270 h	**Term** 1st Semester	**Frequency** winter term	**Duration** 1 semester
Lectures a) Core Theory Lecture (30 h) b) Applied Analysis Seminar(s) (30 h)			**Contact hours** 60 h	**Self-Study** 210 h	**Group size** a) 60 students b) 20 students

Prerequisites
All students participating in the module are enrolled as master students.

Learning outcomes
After successful completion of the module, students will

- be able to explain the multidisciplinary perspectives on the post-industrial city
- be able to evaluate theoretical approaches to challenges and issues confronting post-industrial cities, largely in the EU but also in comparative global context
- be able to critically assess the contested nature of the concepts, definitions, theoretical and policy debates as well as narratives using a comparative approach
- be able to apply the critical understanding gained in this module by contributing to contemporary real-world debates and struggles over post-industrial city transformations in the EU and elsewhere

Content
a) Core Theory Lecture: The lecture will form an introduction to the study of the post-industrial city and provide students with a substantial foundation of content knowledge. It focuses on the built-up urban landscape, the socio-economic structures, socio-spatial dynamics, narratives, urban institutions, and power relations of the industrial past and whether and how these continue to inform transformations of society and space in the post-industrial present. The module will have no single geographical focus but will use examples from a range of different countries and time periods. Students need to understand these facts and ideas, and the theories that connect them, in the context of a conceptual framework of the post-industrial city. The main aim is to introduce students to a multiscalar view of the post-industrial city and the differentiated impact of post-industrialism on societies and cities, and perspectives for the transformation of post-industrial cities. Among others, the module will introduce concepts such as historical institutionalist and comparative historical analysis to study post-industrial cities as institutions regulating land and property, planning, and governance are central. Drawing on insights from practice theory, the issue how macro-structures and micro-agency interplay and cohere is addressed.

b) Applied Analysis Seminar: In the seminar, students will undertake an independent piece of research requiring advanced levels of self-motivation; presentation; time and resource management in addition to independence and creativity of thought, on an approved topic and will produce a 3,500-word research paper. The written assignment will test many of the skills important to employers.

Teaching methods/formats
Lecture, theory-based discussions, seminar-based teaching, project work, group work

Mode of assessment
a) Final written module examination of 60 min. (50 %)
b) Research paper of 3,500 words, submission by the end of February (50 %)

Requirement for the award of credit points
The seminar is designed to practice academic discourse and requires the regular attendance of the students. The awarding of credit points requires the passing of a one-hour written exam on the content of the lectures as well as the design of a seminar session with presentation and group work or discussion on the topic of the written assignment and the research paper.

Module applicability in other degree programmes
NA

Weight of the mark for the final score
10/120

Module coordinator and lecturer(s)
Prof. Dr. Thomas Feldhoff (RUB), Dr. Matthias Falke (RUB)

Further information
SDGs addressed in the module include: SDG 7 Affordable and Clean Energy, SDG 9 Industry, Innovation and Infrastructure, SDG 10 Reduced Inequalities, SDG 11 Sustainable Cities and Communities

RePIC Urban Sustainability Transformations Research Forum					
Module number 1-4	**Credits** 5 CP	**Workload** 135 h	**Term** 1st Semester	**Frequency** winter term	**Duration** 1 semester
Lectures Seminar			**Contact hours** 30 h	**Self-Study** 105 h	**Group size** 60 students

Prerequisites
All students participating in the module are enrolled as master students.

Learning outcomes
After successful completion of the module, students will

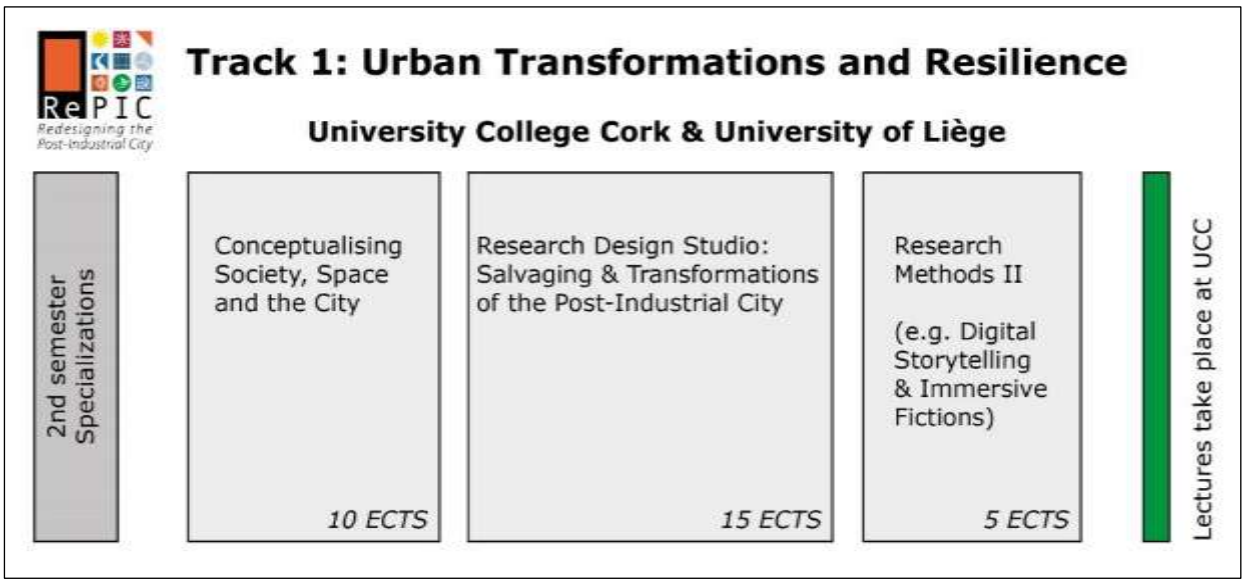
- be able to interpret, debate and communicate both verbally and in writing issues confronting post-industrial cities with specialists in a range of disciplines and with lay-people
- be able to effectively facilitate and participate in multi-stakeholder discussion groups developing integrated and participative approaches to urban policies
- be able to critically evaluate underpinning values in research and reflect on research ethics and civic responsibility.

Content
The RePIC Research Forum addresses the new narrative of "smart, sustainable, resilient urban transformations" with a focus on the "Great Transformation Towards a Sustainable Society"; urban transformation governance that tries to coordinate and steer the driving forces and dynamics characterising transformations towards achieving sustainability; and transformative capacity as the abilities of actors to create innovations that contribute to sustainability. The module will be delivered in-class face-to-face with contributions from all partner institutions either via video conferencing or flying faculty teaching Each session will comprise weekly objectives, recommended reading and specific activities. Topics are derived from current research conducted by RePIC faculty and may include but are not limited to the following:

- Historical Aspects and development paths of Post-Industrial Cities
- Transformative Governance and Transformative Capacities
- Architecture and Designing for Urban Resilience, Modern Approaches to the Visualization of Urban Landscapes (e. g. Virtual and Augmented Reality in Participatory Settings)
- Climatic Design & Stewardship
- Participatory Models in Urban Engagement
- Urban Resilience

• Urban Food Production • Migrancy • Post-Colonialism • Circular Economy • Inclusion, Diversity, Poverty • Race and Gender Equalities & Justice • Urban health • Higher Education, university-community engagement and responsibility
Teaching methods/formats Lectures, theory-based discussions, reading assignments
Mode of assessment Written essay (max. 2,500 words)
Requirement for the award of credit points The seminar is designed to practice academic discourse and requires the regular attendance of the students. The awarding of credit points requires the passing of an oral exam on the content of the research forum lectures.
Module applicability in other degree programmes NA
Weight of the mark for the final score 5/120
Module coordinator and lecturer(s) Prof. Dr. Thomas Feldhoff (RUB), Dr. Matthias Falke (RUB)
Further information SDGs addressed in the module include: SDG 11 Sustainable Cities and Communities, SDG 16 Peace, Justice and Strong Institutions, SDG 17 Partnership for the Goals

Semester 2



Conceptualising Society, Space and the City					
Module number 2-1-1	**Credits** 10 CP	**Workload** 270 h	**Term** 2nd Semester	**Frequency** summer term	**Duration** 1 semester
Lectures a) Seminar(s) (45 h)			**Contact hours** 45 h	**Self-Study** 225 h	**Group size** 20 students

Prerequisites

All students participating in the module are enrolled as master students.

Learning outcomes

After successful completion of the module, students will

- be able to identify and debate concepts in contemporary urban and social theory.
- be able to explain the theoretical foundation for urban research within the social sciences.
- be able to explore the use of social, cultural, political and economic theory in building research practices
- be capable of addressing meaningfully the interdisciplinary contexts of idea in contemporary urbanism
- be able to to develop strong and sustained critical ability to interpret, debate and communicate issues in core texts.

Content

This is a seminar-based module which explores episodes in contemporary urban thinking. Drawing upon range of key thinkers on the city, the module will demonstrate the significance of innovative and interpretive concepts as the basis to generate creative and critical insights into contemporary urban and cultural issues. Attention is given to the relationships between social theory and research design in contemporary urbanism, human geography and related areas.

Readings are available in advance and will form the basis of a reflective weekly discussion. Participants are requested to summarise papers and generate questions for each session. These discussions will contribute to the development of individual presentations that will be delivered during the module. The Group Project will involve a literature review and evaluation of key urban thinkers or theories with a focus on how these are currently applied in research contexts.

Topics to include:

- The City in Theory
- Radical Urbanism
- Planetary Urbanism
- New Economic Geography

- Topology and the City
- Body and Difference
- New Materialism and Nature
- Non-Representational Theory
- Theorizing Digital Urbanism
- Decolonizing the City

as catalyst for discussing the role of design across different disciplines and public domains.

Teaching methods/formats
Seminars

Mode of assessment
Continuous Assessment: 3 Coursework Submissions and include:
[1] Seminar Paper: 50%
[2] Presentation: 15% – Reflective Statement on Key Personal Learning Outcomes
[3] Group Project: 35%– Critical Biographies of Urban Thinkers

Requirement for the award of credit points
The awarding of credit points requires the passing of Coursework submissions [1], [2] and [3]

Module applicability in other degree programmes
NA

Weight of the mark for the final score
10/120

Module coordinator and lecturer(s)
Dr. Denis Linehan

Further information
SDGs addressed in the module include: SDG 8 Decent Work and Economic Growth, SDG 11 Sustainable Cities and Communities, SDG 16 Peace, Justice and Strong Institutions

Research Design Studio: Salvaging & Transformations of the Post-Industrial City					
Module number 2-1-2	**Credits** 15 CP	**Workload** 405 h	**Term** 2nd Semester	**Frequency** summer term	**Duration** 1 semester
Lectures a) Seminar(s) (30 h) b) Design Studio Tutorials (120 h)			**Contact hours** 150 h	**Self-Study** 255 h	**Group size** 20 students

Prerequisites
All students participating in the module are enrolled as master students.

Learning outcomes
After successful completion of the module, students will

- be able to create a design proposal that recognises the distinct cultural, social, and urban conditions found in the post-industrial city.
- be able to interpret complex design ideas with intellectual and methodological rigour.
- be able to communicate a rationale for specific design investigation based on understandings of contextualizing information.
- be able to use advanced digital visual communication methods and appropriate methods to analyse, test, and critically appraise a complex design proposal.
- be able to illustrate novel and innovative design solutions to specific urban research problems that are related to the post-industrial city.
- be able to interact and communicate with specialists across different professional and academic disciplines and with public audiences.

Content
Adopting critical and speculative thinking - and adopting the theme of 'salvage' (of space/ form/ material, landscape) - this Studio-based module will consider critical ideas that deal with issues and questions of contemporary relevance for the city. It will consider the continuous challenges within the historical and Post-industrial city (preservation, identity, access) and the aspirations of a contemporary urban conglomeration (infrastructure, climate, inclusion). It will position the continuous tensions in Post-industrial landscapes as representing a unique opportunity to test multiple latencies that these places hold – distinct temporal, social,

technological, and cultural fields – and questions how they become subject to a process of transformation or 'renovation' in the sense of making new again.
The studio will adopt new and innovative approaches towards engagement (co-design, participation-based, live projects) and use new representational modalities to explore the physical landscapes and built infrastructures within the post-industrial city. Working with a community of local authors and actors, the design-based propositions will act as spatial provocations that critically resituate and define the city in surprising and new ways.
Themes to include:

- Scarcity
- Ecological Fusions
- Urban Emptiness and Evolution
- Future Mythologies
- Renovation of the City-Body

as catalyst for discussing the role of design across different disciplines and public domains.

Teaching methods/formats
Seminars, studio-based learning, project group work

Mode of assessment
Continuous Assessment: 1-3 Coursework submissions: 100% that include:
Schematic representations of research and thematic ideas that define key contextual, cultural, architectural, and environmental constraints. Coursework to be organised in a digital portfolio

Requirement for the award of credit points
The awarding of credit points requires the passing of Coursework submissions [1].

Module applicability in other degree programmes
NA

Weight of the mark for the final score
15/120

Module coordinator and lecturer(s)
Dr. Jason O'Shaughnessy

Further information
SDGs addressed in the module include: SDG 8 Decent Work and Economic Growth, SDG 11 Sustainable Cities and Communities, SDG 12 Responsible Consumption and Production, SDG 16 Peace, Justice and Strong Institutions

Research Methods II: Digital Storytelling & Immersive Fictions					
Module number 2-1-3	**Credits** 5 CP	**Workload** 135 h	**Term** 2nd Semester	**Frequency** summer term	**Duration** 1 semester
Lectures a) Seminar(s) (1 SWS) b) Labs (2 SWS)			**Contact hours** 36 h	**Self-Study** 99 h	**Group size** 20-30 students

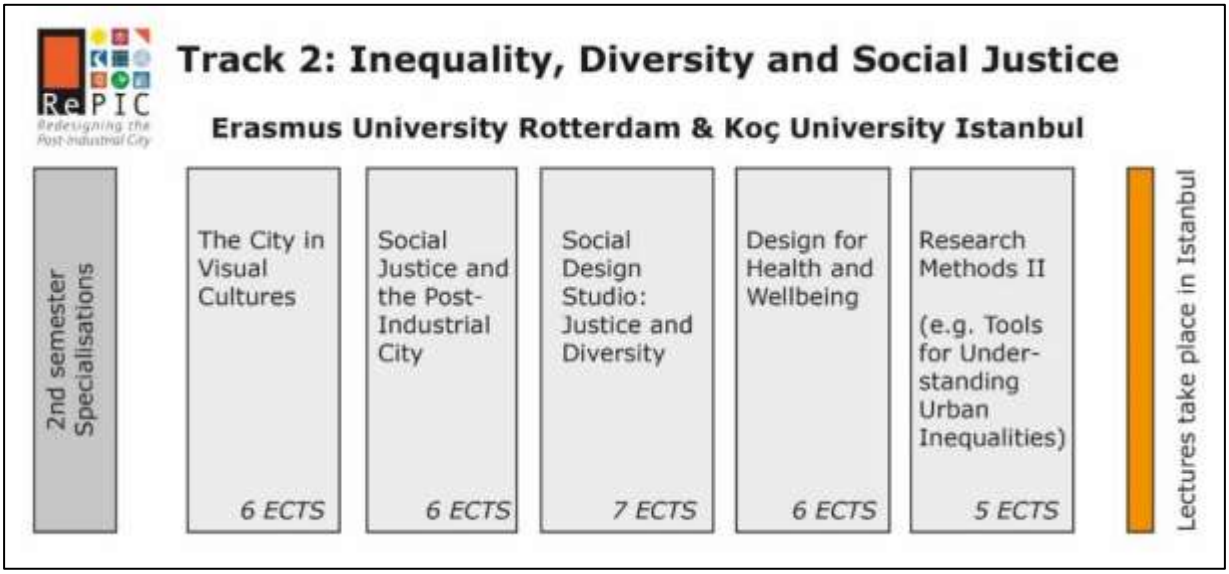
Prerequisites
All students participating in the module are enrolled as master students and have completed the module "Research Methods & Academic Writing: Ethics, Modalities & Co-Design Techniques I".

Learning outcomes
After successful completion of the module, students will

- be able to explain the benefits of digital storytelling to improve key skills and support and communicate research
- be able to use the potential of the digital storytelling process to support a diverse range of urban stakeholders to critically reflect upon the city
- be able to identify and describe digital media concepts and principles, both immersive and non-immersive, in the context of multimedia visualisations.
- be able to demonstrate applied research skills in the creation of digital media and immersive environments.
- be able to demonstrate theoretical understanding of, and practical competence in the use of advanced input and output devices in a virtual environment.

Content
The aims of the Module are to:
(a) understand and visualise current social, ecological, economic, and technological dynamics in the city
(b) find new ways to integrate research with design exploration

(c) enable new forms of digital learning while maintaining empathy with real-world social and natural problems. This Module will critically appraise recent and prospective issues, developments and opportunities in the digital media and new media. It will adopt experimental new modes of visualising and interacting with spatial environments and provide new ways of conjecturing on our digital futures and the possibilities inherent in applied research. With this, it will look at interactions between real world spaces and digital mediations of these spaces - the aim of which is to assist the learner acquire a wide range of critical and creative skills. This will be facilitated by a variety of experts from various disciplines using digital filmic and other immersive research techniques.
Teaching methods/formats Self-guided learning, discussion forums and regular communication, multimedia and interactive activities
Mode of assessment Continuous Assessment: 100%. Coursework to designed and curated into a digital online portfolio.
Requirement for the award of credit points Passed exam
Module applicability in other degree programmes NA
Weight of the mark for the final score 5/120
Module coordinator and lecturer(s) Dr. Jason O'Shaughnessy (UCC), Affiliated RePIC programme Staff.
Further information SDGs addressed in the module include: SDG 4 Quality Education



The City in Visual Culture					
Module number 2-2-1	**Credits** 6 ECTS	**Workload** 162 h	**Term** 2nd Semester	**Frequency** summer term	**Duration** 1 semester
Lectures **Seminars and lectures**			**Contact hours** 45 h	**Self-Study** 117 h	**Group size** 15 students

Prerequisites

All students participating in the module are enrolled as master students, have completed Semester 1.

Learning outcomes

After successful completion of the module, students

- are able to develop visual literacy by working on visual art and media,
- are able to explain how visual culture and cities evolved over time and in different contexts, including post-industrial cities,
- are able to discuss visual art and media with reference to diversity, inequality, and social justice in urban spaces,
- develop analytical skills both verbally and in writing.

Content

Examines how artists, filmmakers and urban planners conceive and visualize the identity of cities and their cultural diversity. Current debates on migration, gentrification and resistance call for a more refined understanding of the processes in the transformation of modern cities as well as social inequalities generated in the urban space (questions of who has the right to the city and which communities are increasingly excluded from it). This course will explore historical and recent debates on the city, its diversity, its marketing/ branding, public space, and inequalities in entering this space, post-industrial locations, and spaces of inclusion and exclusion appear in visual culture. Readings and visual material ranging from photographs, films, graffiti art, installations, architecture, and design will be discussed. The focus will be on European cities such as Amsterdam, London, Berlin, Marseilles, Rome, and Istanbul.

Teaching methods/formats

Seminar course. Depending on the circumstances on pandemic, it may be online, in Istanbul or hybrid.

Mode of assessment

- Weekly response papers (one page, taking a position in relation to the texts, synthesizing at least two reading assignments' central arguments, contributions, and posing questions)
- Presentation of the readings
- Final paper

Requirement for the award of credit points

The course needs to be passed with a sufficient grade in order to receive credit points

Module applicability in other degree programmes

Weight of the mark for the final score
Module coordinator and lecturer(s) Faculty Teaching: Assoc. Prof. Ipek Celik Rappas
Further information: SDGs addressed in the module include**:** SDG 11 Sustainable Cities and Communities, SDG 16 Peace, Justice and Strong Institutions

The Production of Social (In)Justice in the (Post-Industrial)City					
Module number 2-2-2	**Credits** 6 ECTS	**Workload** 162 h	**Term** 2nd Semester	**Frequency** summer term	**Duration** 1 semester
Lectures a) Seminars and lectures (15 h) b) Tutorials (10 h)			**Contact hours** 40 h	**Self-Study** 122 h	**Group size** 25-50 students
Prerequisites All students participating in the module are enrolled as master students, have completed Semester 1.					
Learning objectives: After successful completion of the module, the students will • be able to delineate and discuss seminal theories of social justice through the lens of different disciplines (including history, political economy, public health and sociology). • Be able to compare and synthesize various perspectives on social justice and inequality in order to achieve a more complete understanding of how uneven urban processes and development produce inequal urban spatialities and alter urban politics. • be able to explain the different ways in which (in)justice and (in)equality play a role in shaping all aspects of urban life • be able to develop possible solutions to shape a more just and equal urban environment. • apply the theories discussed to European post-industrial cities to understand how inequality plays out in practice • critically engage with scholarly texts and complex argument, as well as discuss and analyse them both verbally and in writing.					
Content Modern cities, since the industrial revolution, demonstrate the sharpest contradictions in human society. Cities today are global technological innovation hubs, economic growth engines and spearheads of creativity, while at the same time they produce extreme forms of poverty, social and political disarray and environmental hazards. While promising social diversity, cultural life and individual liberties, they simultaneously foster institutionalized modes of violence, control and discrimination. The aim of this course is to critically engage with the contradictions modern cities entail through a social justice perspective, and to examine closely how these topics took/take place in (post)industrial cities. The course will start with introducing different approaches to conceptualizing social justice (e.g., liberal, Marxist, feminist). After introducing these approaches, the course will embed these theories in the urban sphere. The course will demonstrate how urban forms of injustice are contingent while deeply rooted in the particularities and distinctiveness of specific urban realities. Subsequently, building on these theories, as well as conceptual foundations discussed in module 1, the course will critically analyse how historical, political, and economic structures produced, and are still producing, inequalities in European post-industrial cities. Moreover, during the lectures and tutorials, the course will engage with pressing urban issues and real-world examples, such as housing and decision making, in order to deepen our understating of the ways social inequalities are being practiced, sustained and justified in post-industrial urban settings. Nevertheless, the course views cities not only as sites of social theory, but also as prominent sites of social change. Accordingly, the last part of the course will explore theoretical and practical examples of just, or more just, urban processes and developments, and will draw comparisons and necessary conclusions to post-industrial European cities. By the end of the course, the students – future planners, designers, architects, and policy makers – will understand societal mechanisms that produce inequality and will be provided with critical tools (based on real-world examples) to address urban problems as well as suggest alternatives. The input of this course, together with the input of module 1 and the module 2, will form the theoretical and conceptual basis for module 4: ‘social design studio “design justice and diversity”’.					

Teaching methods/formats
Lectures and group work in seminars

Mode of assessment
- Written paper (50 %)
- Presentation (15 %) – critically analysing social (in)justice in your hometown
- Group project output (35 %) – comparing social injustice mechanisms in post-industrial European cities.

Requirement for the award of credit points
The course needs to be completed with a sufficient grade.

Module applicability in other degree programmes
NA

Weight of the mark for the final score
6/120

Module coordinator and lecturer(s)
Dr. Merav Kaddar (IHS/EUR)

Further information
SDGs addressed in the module include: SDG 8 Decent Work and Economic Growth, SDG 11 Sustainable Cities and Communities, SDG 16 Peace, Justice and Strong Institutions

Social Design Studio "Justice and Diversity"					
Module number 2-2-3	**Credits** 6 ECTS	**Workload** 162 h	**Term** 2nd Semester	**Frequency** summer term	**Duration** 1 semester
Lectures Seminars and lectures			**Contact hours** 45 h	**Self-Study** 117 h	**Group size** 15 students

Prerequisites
All students participating in the module are enrolled as master students, have completed Semester 1.

Learning outcomes
After successful completion of the module, the students will
- be able to navigate one complex social topic of design with "critical and responsible design" perspectives.
- be able to critically analyse existing theories around design, diversity, and social justice,
- be able to explore and apply social design methods through ideating, collecting data, making analysis, communicating, and sharing their insights.
- be able to explore the strengths and weaknesses of existing designs and tools to work and design with undervalued groups and transfer their insights into design implications and tangible outcomes or services as teams.

Content
"Social Design Studio: Design Justice and Designing for Diversity" offers a socially engaged design studio environment. Seminars and impulse lectures will be held on 3 contemporary topics throughout the semester. Students will deal with social issues with design tools in collaboration with NGOs and activists. Methods like workshops, hack sessions, laddering interviews, social juries will be used. The three topics of the studio will align classical domains such as are: "Inclusion & Diversity", "Food Sustainability & Migration", "Activism, Design and Gender" to post-industrial cities.

Teaching methods/formats
Seminar, studio work, group work, an exhibition out of selected work.
- (impulse lecture+workshop) Keynote and opening talks for three topics, followed by panels and in class exercises
- Project work (topic 1&2)
- Studio work as city lab (topic 3)

Mode of assessment
[15 %] Q&A and moderation for keynote talks (5 points for each topic)
[15 %] Reading assessment: Posting reading questions and in-class discussion on readings
[20 %] Design Process Assessment: Design Journals (divided into 3 projects 5/5/10)

[15 %] Tool development and trial iterations (topic 2 and 3, 5/10)
[15 %] Studio Assessment: Topic presentations (topic 1 and 2)
[20 %] Studio Assessment: Final project progress & final presentation

Requirement for the award of credit points
Absence no more than 2 lectures
Design journal with at least two projects with progress
Collection of minimum 60 points

Module applicability in other degree programmes
NA

Weight of the mark for the final score
7/120

Module coordinator and lecturer(s)
Faculty Teaching: Dr. Özge Subaşı

Further information
SDGs addressed in the module include: SDG 11 Sustainable Cities and Communities, SDG 12 Responsible Consumption and Production, SDG 16 Peace, Justice and Strong Institutions

Design for Health and Wellbeing					
Module number 2-2-4	**Credits** 6 ECTS	**Workload** 162 h	**Term** 2nd Semester	**Frequency** summer term	**Duration** 1 semester
Lectures a) Lectures (14 h) b) Seminars (14 h) c) Work group meetings (14 h) d) Assignment workshop (2 h) e) Assignment presentations (2 h)			**Contact hours** 46 h	**Self-Study** 116 h	**Group size** 25 students

Prerequisites
All students participating in the module are enrolled as master students, have completed Semester 1.

Learning outcomes
After successful completion of the module, students will
- be able to explain the basic theories and models of public health and of transition processes of post-industrial cities
- be able to identify major population health challenges in urbanization
- be able to apply design thinking to develop interventions strategies and policies aimed at individual behaviour and social and physical environments in which individuals live

Content
While public health strategies have contributed tremendously to improvements in population health, major challenges remain, such as health inequalities, climate change, and obesogenic environment. Many of these problems are 'wicked problems' which are complex, dynamic, and context specific. Improving population health in urban areas in the next decade(s) requires a thorough analysis of current challenges, their causes, and solutions, and learning from problems and successes of the past. Unidirectional interventions will not suffice, and innovative strategies are required that understand how factors in the urban environment are likely to operate as a complex system and interact with each other and with individual city inhabitants in the specific urban context of rapidly developing post-industrial cities.
In this course, students will learn how public health theories have developed from deterministic downstream-upstream models via socio-ecological models towards system approach and life-course perspective.
Methods to identify current population health challenges will be presented, and principles of developing prevention strategies will be applied to these challenges. The course will challenge participants to engage with public health problems and to integrate design thinking in tackling the complex problems in public health with effective solutions. Examples of (re)designing healthy neighbourhoods and healthy cities will inspire participants in the pursuit of sustainable solutions to improve the health of individuals and communities.

Teaching methods/formats

The course includes lectures, eLearning, group work, group assignments, and site visits.

Mode of assessment

In line with the principles of public health as a collective science-based action, the assessment will consist of a group presentation by GIF on the design of a solution for a population health problem in a post-industrial city. The presentation (max 5 min) must show:

- the magnitude of the population health challenge (2nd learning outcome)
- scientific evidence how to tackle this challenge (1st learning outcome), and
- use of design thinking on potential solutions at individual behavioural level or at social and physical environmental level (3rd learning outcome).

Assessment will take place at group level by self-evaluation of individual contribution to teamwork and collaboration and by evaluation of the quality of the presentation. Final grade will be pass or fail.

Requirement for the award of credit points

The course needs to be passed with a sufficient grade in order to receive credit points.

Module applicability in other degree programmes

NA

Weight of the mark for the final score

6/120

Module coordinator and lecturer(s)

Faculty Teaching: Prof. Dr A. Burdorf (Erasmus University) and others (assistant professor level)

Further information

SDGs addressed in the module include: SDG 2 Zero Hunger, SDG 3 Good Health and Wellbeing SDG 6 Clean Water and Sanitation, SDG 9 Industry, Innovation and Infrastructure

Research Methods II: Conceptual and Methodological Tools for Researching Post-Industrial Cities					
Module number 2-2-5	**Credits** 6 ECTS	**Workload** 162 h	**Term** 2nd Semester	**Frequency** summer term	**Duration** 1 semester
Lectures a) Dr. Aykut Coskun & Dr. Asım Evren Yantac , KU b) Prof. Lasse Gerrits			**Contact hours** 46 h	**Self-Study** 116 h	**Group size** Approx. 20 students

Prerequisites

All students participating in the module are enrolled as master students, have completed Semester 1.

Learning objectives:

The aim of this course is to equip participants with a mixed-method toolkit for designing and executing urban research. After successful completion of the module, students will

- understand the differences between quantitative, qualitative, design and mixed methods research.
- be able to use qualitative, quantitative, mixed and design research methods, including data collection, analysis, and interpretation, to examine and understand issues of inequality issues of inequality and justice in cities.
- be able to identify the appropriate research methodology to answer their research question.
- be able to undertake research in post-industrial urban settings.
- be able to present their findings (through a written text, oral presentation and/or design outcome).

Content

Cities and urban areas around the world are becoming bigger and more complex to understand, plan and design. Post-industrial cities pose an even greater challenge as they encompass opposite, at time contradictory, processes occurring at the same time. Inequality and injustice may emerge from these processes.

To face these challenges researchers and practitioners must know how to use, and combine, different tools for collecting, analysing, and presenting data.

This methodological module will teach participants how to engage with rigorous urban research through a mixed-method approach. Through familiarizing themselves with different research methodologies, the students will learn how choose and apply the right methodology/ies for answering their research questions. Accordingly, the module will have three main themes – quantitative research, qualitative research, mixed-methods, and design research methods.

The first part of the module will teach students how to use quantitative research methodologies. In this part the students will learn descriptive statistics; data visualization; probability and estimation; hypothesis testing; simple

and multiple regression analysis. The students will also learn how to work with Geographical Information Systems. Additionally, the students will learn to us software like R for statistical analysis.
In the second part of the module, the students will learn to use qualitative research methodologies, covering both theoretical considerations for qualitative research, as well as practical dimensions of data collection and analysis. During this part the students will learn qualitative data collection tools such as interviews, focus groups, observations, online and offline qualitative data collection. Additionally, the students will learn how to analyse their data using software such as ATLAS.ti or MaxQDA (types, data preparation and coding, analysis, presentation of findings).
In the third part of the module, the students will learn theories and methodologies of design. This includes definitions of design and design activity; ways of doing and knowing, theory construction in design. Three types of design research: research for, in and through design. Additionally, the students will be introduced to different methodological approaches in design, such as user centred design, research through design, participatory design, collaborative design, and critical design.
The module uses a hand-on approach, where the students apply the methodologies learnt in practice throughout the module. In the beginning of the course each student will choose a research topic relating to the track's theme and will explore it through the different methodological approaches taught. At the end of the course the students will be asked to speculate about future experiences in post-industrial cities of the future, in relation to the research topic they selected at the beginning of the module. For the module's concluding assignment, the students will utilize and integrate the different methodological approaches they learnt, based on the data collected and analysed throughout the module.

Teaching methods/formats
Lectures, seminars, group-work, workshops, and case-based assignments.

Mode of assessment
- Attendance and participation in the course, workshops and groupwork – 5 %
- Three small-scale assessments – one for each of the module's themes – 60%
- Final assessment – 35%

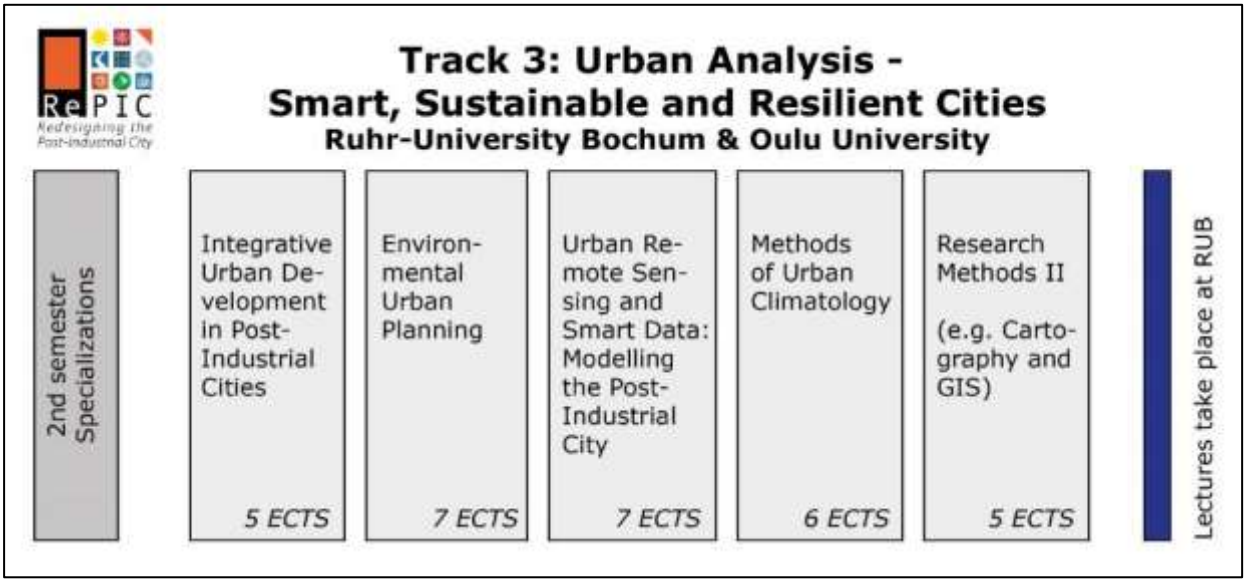
Requirement for the award of credit points
The course needs to be completed with a sufficient grade.

Module applicability in other degree programmes
Not relevant

Weight of the mark for the final score
5/120

Module coordinator and lecturer(s)
Staff: Entire KU and EUR teams.

Further information
SDGs addressed in the module include: SDG 4 Quality Education, SDG 9 Industry, Innovation and Infrastructure SDG 10 Reduced Inequalities, SDG 11 Sustainable Cities and Communities, SDG 12 Responsible Consumption and Production



Integrative Urban Development					
Module number 2-3-1	**Credits** 5 CP	**Workload** 135 h	**Term** 2nd Semester	**Frequency** summer term	**Duration** 1 semester
Lectures a) Lectures 15 h (online) b) Seminar 15 h (online)			**Contact hours** 30 h	**Self-Study** 105 h	**Group size** 15 students
Prerequisites All students participating in the module are enrolled as master students, have completed Semester 1. Basic knowledge of urban design or planning is desirable.					
Learning outcomes After successful completion of the module, students will • be able to state features of integrative urban development, and to describe the roles of urban design and planning in the interaction of the built environment, society, business and innovations, culture, technology, and nature, in the context of smart city, • be able to describe user and customer-oriented development principles, • be able to create a thematic review on a smart city development topic.					
Content The lectures of the study unit deal with the procedures of integrative urban development, in the context of smart city. The thematic review focuses on a smart city development topic. The student presents the thematic review in interim and final seminars.					
Teaching methods/formats Online lectures and seminars, independent studying.					
Mode of assessment Presentation of the review report.					
Requirement for the award of credit points Participation to lectures (80%), presentation of the review report (5 pages + references) in the final seminar.					
Module applicability in other degree programmes The module is applicable in the MSc Architecture degree programme (orientation Urban design & planning, University of Oulu).					
Weight of the mark for the final score 5/120					
Module coordinator and lecturer(s) Professor Helka-Liisa Hentilä (coordinator) and Postdoctoral Researcher Sari Hirvonen-Kantola (lecturer).					
Further information					

SDGs addressed in the module include: SDG 7 Affordable and Clean Energy, SDG 9 Industry, Innovation and Infrastructure, SDG 11 Sustainable Cities and Communities, SDG 13 Climate Action, SDG 15 Life on Land, SDG 16 Peace, Justice and Strong Institutions, SDG 17 Partnerships for the Goals.

Environmental Urban Planning					
Module number 2-3-2	**Credits** 7 CP	**Workload** 189 h	**Term** 2nd Semester	**Frequency** summer term	**Duration** 1 semester
Lectures Seminar			**Contact hours** 30 h	**Self-Study** 159 h	**Group Size** 15 students
Prerequisites All students participating in the module are enrolled as master students, have completed Semester 1.					
Learning outcomes After successful completion of the module, students will • have gained a critical understanding of the diverging meanings of core concepts of landscape and environment in various fields of politics in Europe and in Germany, • have a knowledge of the tasks and structure of landscape planning in Germany, • are familiar with the most important instruments of landscape and environmental planning.					
Content • Landscape Definitions (e.g., European Landscape Convention, UNESCO World Heritage Convention) • Federal Nature Conservation Act (German: BNatSchG u. LSchG NRW) • Environmental Aspects (Concerns) in Binding Land use Plans and in Regional Planning • Nature Conservation, Biotope (Value) Assessment and Compensation • Environmental Impact Assessment (EIA - German: UVP, UVU, UVS) • Environmental Indicators and Environmental Quality Goals and Standards • Strategic Environmental Assessment • Methods of Multi-dimensional Ecological Impact Analyses for Planning					
Teaching methods / formats Lectures, group discussions, short field trips and oral contributions					
Mode of assessment Oral exam					
Requirements for the award of credit points Passed exam					
Module applicability in other degree programmes The module is applicable for incoming international master students at RUB.					
Weight of the mark for the final score 7/120					
Module coordinator and lecturer(s) Prof. Dr. Christian Albert (RUB)					
Further information SDGs addressed in the module include: SDG 6 Clean Water and Sanitation, SDG 9 Industry, Innovation and Infrastructure, SDG 11 Sustainable Cities and Communities, SDG 15 Life on Land					

Urban Remote Sensing and Smart Data: Modelling the Post-industrial City					
Module number 2-3-3	**Credits** 7 CP	**Workload** 189 h	**Term** 2nd Semester	**Frequency** summer term	**Duration** 1 semester
Lectures Seminar			**Contact hours** 45 h	**Self-Study** 144 h	**Group Size** 15 students
Prerequisites All students participating in the module are enrolled as master students, have completed Semester 1.					

Learning outcomes

Having successfully passed the module, students will

- be able to apply principles of urban remote sensing
- be able to extract thematic information of digital imagery
- be able to extract thematic spatiotemporal information from the analysis of crowd sourced data
- be able to explain the limitations of methodological approaches embedded in current software

Content

- Introduction to concepts of urban remote sensing and volunteered geographic information
- Overview of data sources and their specific characteristics
- Modern methods of accessing (open) geodata
- Modern methods of implementing crowd sourced data GIS
- Data classification
- Creating visual results of spatial mass data
- Extracting thematic information from various (open) data sources
- Planning and creating an individual practical project

Teaching methods / formats

Theory-based discussions, (hands-on) tutorials, group work, final practical project

Mode of assessment

Practical project

Requirements for the award of credit points

Passed exam

Module applicability in other degree programmes

The module is applicable for incoming international master students at RUB.

Weight of the mark for the final score

7/120

Module coordinator and lecturer(s)

Jun. Prof. Dr. Andreas Rienow (RUB)

Further information

SDGs addressed in the module include: SDG 4 Quality Education, SDG 9 Industry, Innovation and Infrastructure, SDG 11 Sustainable Cities and Communities

Urban Climatology

Module number 2-3-4	**Credits** 6 CP	**Workload** 162 h	**Term** 2nd Semester	**Frequency** summer term	**Duration** 1 semester
Lectures Seminar			**Contact hours** 30 h	**Self-Study** 132 h	**Group Size** 15 students

Prerequisites

All students participating in the module are enrolled as master students, have completed Semester 1.

Learning outcomes

After successful completion of the module, students will

- be able to explain theories of urban climatology and related methods (observations, remote sensing, modelling)
- be able to apply methods to derive climate relevant urban characteristics (e.g., Local Climate Zone Maps)
- be able to explain basic modelling concepts – including their strengths and shortcomings –and to run selected urban climate models

Content

The course may include but is not limited to the following topics

- Introduction to basic concepts of urban climatology
- The urban energy balance
- The urban heat island
- Concepts to describe the urban characteristics (urban structure, fabric, cover) at different scales (building, canyon, neighbourhood, city)
- Modelling approaches

• Observations of urban climates • Remote sensing of urban climates • Biometeorology • Air quality
Teaching methods / formats Theory-based discussions, (hands-on) tutorials, group work, final practical project
Mode of assessment Practical project and presentation.
Requirements for the award of credit points Passed exam
Module applicability in other degree programmes The module is applicable for incoming international master students at RUB.
Weight of the mark for the final score 6/120
Module coordinator and lecturer(s) Prof. Dr. Benjamin Bechtel (RUB)
Further information SDGs addressed in the module include: SDG 3 Good Health and Wellbeing, SDG 11 Sustainable Cities and Communities, SDG 13 Climate Action

Research Methods II

Students select one of the following three elective options:

Research Methods II Design Thinking in Urban Context					
Module number 2-3-5	**Credits** 5 CP	**Workload** 135 h	**Term** 2nd Semester	**Frequency** summer term	**Duration** Five weeks (May-June)
Lectures a) Lectures b) Seminar c) Workshop			**Contact hours** 30 h	**Self-Study** 105 h	**Group size** 18 students
Prerequisites All students participating in the module are enrolled as master students, have completed Semester 1.					
Learning outcomes After successful completion of the module, students will • have fundamental knowledge of Design Thinking as a design approach • be able to apply the Design Thinking methods and process in the design and development of urban environments • be able to collect and utilize user-understanding in design work • be able to report design evidence • be able to formulate a design brief -document					
Content - Introduction to concepts of Design Thinking - Overview of the methods, process, and philosophy of Design Thinking - Collecting and documenting user-understanding - Formulating a design brief -document - Recording and analyzing the completed design process					
Teaching methods/formats Online course with workshop and seminar-based teaching, lectures, project work in small groups. Active student participation is expected during the intensive weekend workshops where much of the teaching and group work is done. Students complete a Design Thinking project from start to finish in small groups. Teacher lectures and guidance support the completion of the group work.					
Mode of assessment Oral and written seminar presentations of the completed Design Thinking project.					
Requirement for the award of credit points					

The course is built around intensive group work during which students complete a Design Thinking proses from start to finish and present their evidence report and a design brief -document in the final seminar. Participation to 80% of contact teaching and the completion of course work is required.
Module applicability in other degree programmes The module is applicable in the MSc Architecture Degree Programme (Uni Oulu).
Weight of the mark for the final score 5/120
Module coordinator and lecturer(s) Prof. Helka-Liisa Hentilä (coordinator), Doctoral researcher, MSc Arch. Eevi Juuti (lecturer)
Further information SDGs addressed in the module include: SDG 3 Good Health and Wellbeing, SDG 11 Sustainable Cities and Communities, SDG 9 Industry, Innovation and Infrastructure**.**

Research Methods II: GIS Basics and Cartography					
Module number	**Credits** 5 CP	**Workload** 135 h	**Term** 2nd Semester	**Frequency** summer term	**Duration** 4 weeks
Lectures			**Contact hours**	**Self-Study** 135 h Asynchronous online course	**Group size** 20 students
Prerequisites All students participating in the module are enrolled as master students, have completed Semester 1.					
Learning outcomes Having successfully passed the module, the students ▪ know the key principles of Geographic Information Systems (GIS) and cartographic visualization ▪ understand the different types of geographic information and data models can use GIS software to produce thematic maps and perform basic data processing tasks					
Content - Introduction to Geographic Information Systems (GIS) and cartography - Thematic mapping - Principles of cartographic visualization - Coordinate systems and projections - Georeferencing and digitizing - Basics of spatial interpolation					
Teaching methods/formats Independent studying online					
Mode of assessment Weekly thematic written assignments (50% of the final grade) and practical assignments involving the use of GIS data and software (50% of the final grade)					
Requirement for the award of credit points Completion of all written and practical assignments given during the course					
Module applicability in other degree programmes					
Weight of the mark for the final score 5/120					
Module coordinator and lecturer(s) Dr. Harri Antikainen, harri.antikainen@oulu.fi Faculty of Science (GEO), University of Oulu					
Further information SDGs addressed include: SDG 3 Good Health and Wellbeing, SDG 11 Sustainable Cities and Communities, SDG 15 Life on Land					

Research Methods II: Data and Decision Making

Module number	**Credits** 5 CP	**Workload** 135 h	**Term** 2nd Semester	**Frequency** summer term	**Duration** 0,5 semester
Lectures a) Online			**Contact hours** 36 SWS	**Self-Study** 52h	**Group size** 20 students

Prerequisites
All students participating in the module are enrolled as master students, have completed Semester 1.

Learning outcomes
After successful completion of the module

- students understand what the science of data-driven decision-making and analytics means in the urban context
- Students understand how data transforms into information and knowledge through interaction
- students are familiar with the design process of data-driven services both at systemic and citizen-centric points of view
- students know how to apply data-driven decision making in smart city context

Content
The course gives an overview of data-driven decision making in an organizational and network-driven context, addressing key organizational functions, stakeholders, resources, and transactions. An overview of the key smart city processes and support systems is given, from the viewpoint of data-driven planning, execution and improvement for knowledge management and decision making. The needs of smart city stakeholders, including city organization, small and medium-size companies, public service organizations and community-based settings are also brought up.

Teaching methods/formats
Blended approach, including individual assignments and group work in an online learning platform, with visiting experts.

Mode of assessment
Weekly thematic written assignments, (appr. 300 words each) and/or oral presentation, consisting altogether 40 per cent of the grade and an examination through research report based on course topics 60% of the final grade (length 10 pages), *submission by end of course*

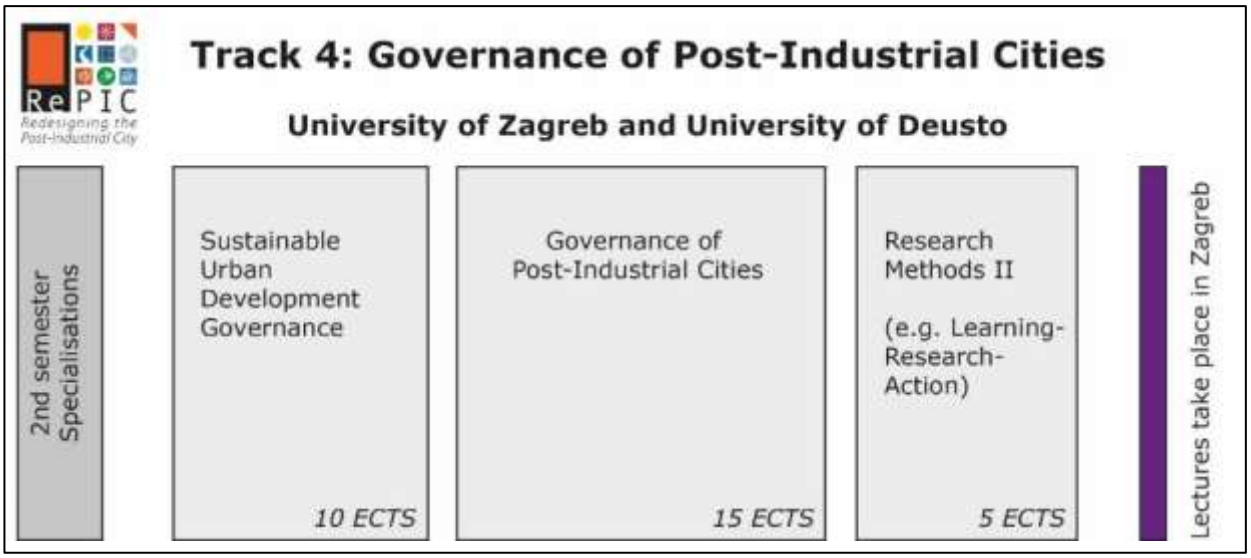
Requirement for the award of credit points
The course utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

Module applicability in other degree programmes

Weight of the mark for the final score: 5/120

Module coordinator and lecturer(s) Dr. Marika Iivari, marika.iivari@oulu.fi Oulu Business School, University of Oulu

Further information
SDGs addressed in the module include: SDG 8 Decent Work and Economic Growth, SDG 9 Industry, Innovation and Infrastructure, SDG 11 Sustainable Cities and Communities.



Sustainable Urban Development Governance					
Module number 2-4-1	**Credits** 10 CP	**Workload** 270 h	**Term** 2nd Semester	**Frequency** summer term	**Duration** 1 semester
Lectures a) Foundations of SUD Governance b) Environmental SUD Governance c) Economic SUD Governance d) Social SUD Governance e) Cultural SUD Governance			**Contact hours** 100 h (37%)	**Self-Study** 170 h (63%)	**Group size** 15 students
Prerequisites All students participating in the module are enrolled as master students, have completed Semester 1.					
Learning outcomes After successful completion of the module, students will be able: • to understand the complexity and interrelationships of each and between the different fields of sustainable urban development (environmental, social, economic, and cultural). • to apply their acquired knowledge and problem-solving skills in familiar or unfamiliar environments, within broader (or multidisciplinary) contexts related to their area of study. • to measure/evaluate the level of environmental, economic, social and cultural development of a city project. • to identify, understand, interpret, evaluate, and use data and indicators in relation to the different areas of sustainable urban development. • to appropriately communicate the analysis and results of their urban assessments using digital tools. • to interact and communicate with agents and experts of the different areas of sustainable urban development. • to effectively determine the purpose, objectives, methodology, team, resources, time management, evaluation and impact indicators required in the implementation of an integrated sustainable urban development model.					
Content This module provides the theoretical and practical accommodation of sustainability in urban development processes. It aims to train students in the management and knowledge of the theoretical foundations, principles, criteria and strategies, new challenges and problems related to the different areas that make up the concept of sustainable urban development: environmental, economic, social, and cultural development. Providing students with the foundations to critically assess the interrelationships between environmental, cultural, economic, and social processes in the production and development of a resilient habitat, endowed with identity, quality of life and opportunities framed by a holistic, multidimensional, cross-sectoral, and cross-cutting vision. The module is divided into five different sections, which address the following topics: a) Foundations of SUD Governance (UNIZG-FL + UNIZG-AF): Introduction to SUD; International organizations and documents governing sustainable postindustrial urban development, Tools for assessing					

sustainable development of postindustrial cities; global, national and local agendas for SUD: Agenda 2030, NUA, European Urban Agenda, etc.; Tools for assessing sustainable development of postindustrial cities.

b) Environmental SUD Governance – Planning Processes in Contemporary Urban Developmen (UNIZG-AF + UNIZG-FL): Planning and governance strategies in European cities, Smart city concepts, Traffic and sustainability, Governing and Planning Housing and Public Space by transforming brownfields, Touristification and sustainable city development, Gentrification of urban cores, Subsidized housing and urban transformation, The role of Green and Blue infrastructure in contemporary urban transformation (Landscape urbanism, climate change, green networks…);

c) Economic SUD Governance (UD): City competitiveness - city marketing; financing SUD: public-private management; urban economy and circular city; mobility, transport and logistics; post-disaster and transitional urban development: Structural vs holistic urban reconstruction;

d) Social SUD Governance (UNIZG-AF + UNIZG-FL): Urban sociology; migrations; age groups and social groups; human rights and the right to the City; Identity, diversity, multiculturalism.

e) Cultural SUD Governance (UD): Heritage Urbanism; Assessing, preserving, and redesigning postindustrial sites: identity and spatial transformation.

Teaching methods/formats

Model of teaching-learning strategy:

- Theoretical classes: lectures of the relevant elements, concepts and procedures of the area of knowledge, both by teachers and by studens (*flipped learning).*
- Case studies: practical applications of the knowledge acquired, with guidance for reflection and personal learning.
- Seminars and workshops, testimonials and/or visits to actors involved in the promotion and implementation of governance for sustainable development in the city.
- Reading and synthesis of articles, books and other study materials, preparation of papers, planning and preparation of assignments, planning and project work, preparation of articles and preparation of articles and presentations, preparation and analysis of real or simulated cases.
- Tutoring and monitoring: individual and group consultations, design and development of work, development of reports, individual and group feedback, return of work and deliverables.

There will be a combination of face-to-face, blended, and virtual classes.

Mode of assessment

Continuous assessment and final paper.

- Resolution of exercises and problems, both of a partial nature, carried out during the course period, as well as of a global nature, at the end of the semester. (15 %)
- Oral presentations given during the course period. (15 %)
- Written Paper that contains a personal reflection on the different trends in the understanding and interpretation of the city in its complexity, and a case study analysis (45 %)
- Record of attendance and active participation in follow-up tutorials. (25 %)

Requirement for the award of credit points

The award of credit points will be subject to the passing of the Paper and an overall minimum mark of 50 %.

Module applicability in other degree programmes

NA

Weight of the mark for the final score

10/120

Module coordinator and lecturer(s)

Coordinator:

Lecturers:

Ivan Koprić (UNIZG-FL)
Vedran Đulabić (UNIZG-FL)
Goranka Lalić Novak (UNIZG-FL)
Mihovil Škarica (UNIZG-FL)
Tijana Vukojičič Tomić (UNIZG-FL)
Sanja Gašparović (UNIZG-AF)
Lea Petrović Krajnik (UNIZG-AF)
Anka Mišetić (UNIZG-AF)

Further information

SDGs addressed in the module include: SDG 9 Industry, Innovation and Infrastructure, SDG 11 Sustainable Cities and Communities, SDG 17 Partnership for the Goals

Governance of Post-Industrial Cities					
Module number 2-4-2	**Credits** 15 CP	**Workload** 405 h	**Term** 2nd Semester	**Frequency** summer term	**Duration** 1 semester
Lectures / Courses a) Multi-level Governance, Cohesion Policy and Urban Development b) Institutional Analysis of Local and Urban Governance Models c) Collaborative Trans-sectoral Governance			**Contact hours** 120 h	**Self-Study** 285 h	**Group size** 15 students
Prerequisites All students participating in the module are enrolled as master students, have completed Semester 1.					
Learning outcomes After successful completion of the module students will be able: • to describe the role and the position of sub-national territorial units in the multi-level governance system. • to recognise the relations between the State and lower territorial levels, especially towns and cities; theoretically and comparatively. • to work in local administrative bodies at all professional positions and for work in other administrative or non-profit sector bodies related to local government and decentralization. • to transpose ideas of local autonomy, decentralization, or legal basis of local self-government to the specific solutions that are applicable in policy processes related to local government. • to compare individual aspects of local governance within different political systems (territorial structure, local scope, supervision and financing). • to understand the functioning of the European structural and investment funds, as well as of the implications of the EU Cohesion Policy on the urban level of governance. • to understand the main concepts connected with the term city and urban management. • to recognise the relevant European environment: important societal and administrative processes, legal and administrative principles and standards regarding position and development of towns and cities. • to implement measures and instruments for management and sustainable development in urban areas. • to communicate problems, ideas, and solutions to academic and professional bodies • to understand the role of cities in migration and diversity management • to recognize the concept, dimensions, and approaches to the integration of migrants and refugees at local level					
Content This module provides the theoretical and practical foundations of institutional and legal aspects of urban governance. It aims to train students in the management and knowledge of the theoretical foundations, principles, criteria and strategies, new challenges and problems related to the different areas that make up the concept of urban governance, particularly with administrative and institutional aspects of local self-government in urban areas, implementation of EU Cohesion Policy in urban setting, local/urban public services (services of general interest), and management of urban migrations. The module is divided into three different sections (courses), which address the following topics: a) Multi-level Governance, Cohesion Policy, and Urban Development (UNIZG-FL): The aim of the course is to introduce the students to the concept of Multi-level Governance, as well as the organization and functioning of the Cohesion policy of the European Union with special emphasis on its urban dimension. The students are introduced to the basic concepts required for the understanding of multi-level and network governance as doctrinal and theoretical concepts important for understanding of governance of post-industrial cities (e.g., regional and cohesion policy, regional and urban development, EU structural and investment funds, absorption capacity, multi-level decision-making, network governance). b) Institutional Analysis of Local and Urban Governance Models (UNIZG-FL): This course will introduce students with institutional analysis of different local governance models with special emphasis on institutional models of governing urban areas of various sizes. Students are introduced with basic ideas and					

conceptual issues of local government. Students are introduced to the principles of territorial organization of local governments, vertical delineation of public affairs, local government roles in the modern world, the scope of the territorial units of government, political processes at the local level, organization and activities of local administrative structures and the basics of the decentralization process.

c) Collaborative Trans-sectoral Governance (UNIZG-AF and UNIZG-FL): Government and governance of cities; relational and collaborative governance; communication between institutions and citizens in a context of collaborative governance; open government - transparency and accountability, OGP; city government and public opinion; cities and conflict management; citizen participation; digital administration and public governance; smart citizenship; and local public services.

Teaching methods/formats

Model of teaching-learning strategy:

- Theoretical classes: lectures of the relevant elements, concepts, and procedures of the area of knowledge, both by teachers and by students (*flipped learning).*
- Case studies: practical applications of the knowledge acquired, with guidance for reflection and personal learning.
- Simulations and role-playing.
- Seminars and workshops, testimonials and/or visits to actors involved in the promotion and implementation of governance for sustainable development in the city.
- Reading and synthesis of articles, books and other study materials, preparation of papers, planning and preparation of assignments, planning and project work, preparation of articles and preparation of articles and presentations, preparation, and analysis of real or simulated cases.
- Tutoring and monitoring: individual and group consultations, design and development of work, development of reports, individual and group feedback, return of work and deliverables.
- Interdisciplinary design studios: group work with consultations, design and presentation of original work, feedback with guests, exhibition.

There will be a combination of face-to-face, blended, and virtual classes.

Mode of assessment

Continuous assessment and final paper.

- Resolution of exercises and problems, both of a partial nature, carried out during the course period, as well as of a global nature, at the end of the semester. (15 %)
- Oral presentations, pin-ups and exhibitions given during the course period. (15 %)
- Written Paper and group design that contains a personal reflection on the different trends in the understanding and interpretation of the city in its complexity, a case study analysis, and a planning design (45 %)
- Record of attendance and active participation in follow-up tutorials. (25 %)

Requirement for the award of credit points

The award of credit points will be subject to the passing of the Paper, positive evaluation of the group design and an overall minimum mark of 50 %.

Module applicability in other degree programmes

NA

Weight of the mark for the final score

15/120

Module coordinator and lecturer(s)

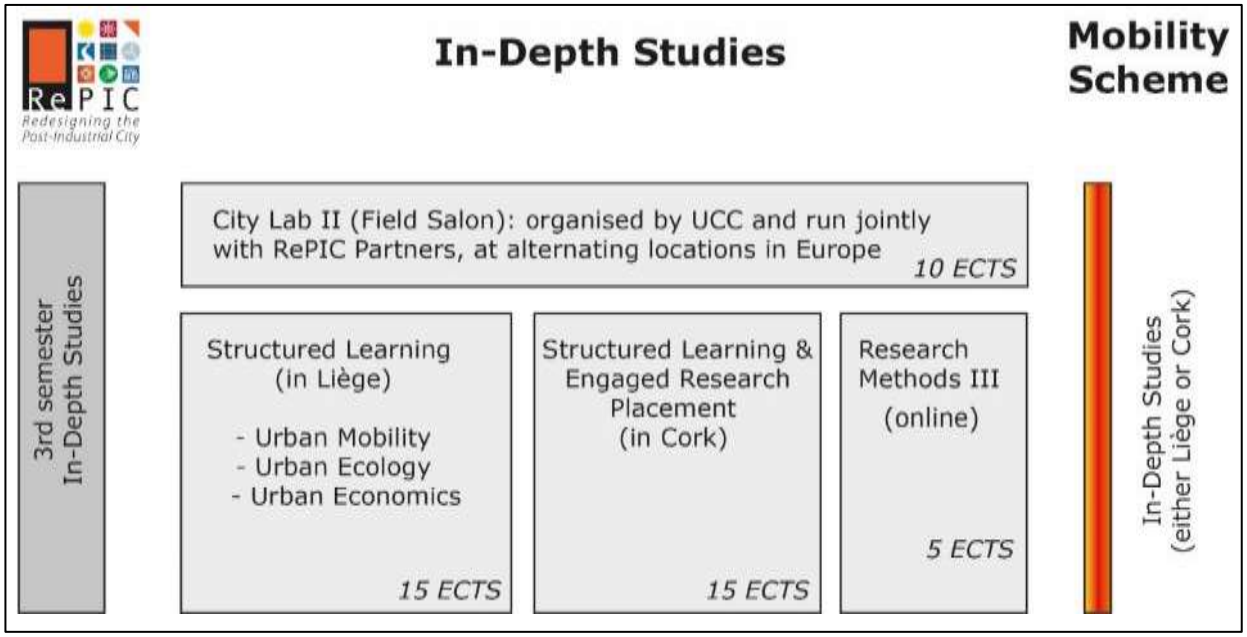
Ivan Koprić (UNIZG-PF)
Vedran Đulabić (UNIZG-PF)
Goranka Lalić Novak (UNIZG-PF)
Mihovil Škarica (UNIZG-PF)
Teo Giljević (UNIZG-PF)
Tijana Vukojičić Tomić (UNIZG-PF)
Iva Lopižić (UNIZG-PF)
Kristina Careva (UNIZG-AF)
Rene Lisac (UNIZG-AF)

Further information

SDGs addressed in the module include: SDG 11 Sustainable Cities and Communities, SDG 17 Partnership for the Goals

Research Methods II: Methodological Approaches and Tools for Understanding the Governance of Post-Industrial Cities					
Module number 2-4-3	**Credits** 5 CP	**Workload** 135 h	**Term** 2nd Semester	**Frequency** summer term	**Duration** 1 semester
Lectures Partially online with 1 week face to face			**Contact hours** 35 h	**Self-Study** 100 h	**Group size** 20-30 students
Prerequisites All students participating in the module are enrolled as master students, have completed Semester 1.					
Learning outcomes After successful completion of the module, students will • be able to understand the research process and the differences between quantitative, qualitative and mixed research methods • be able to review past literatures and select a theoretical framework related to their research proposal • be able to frame and define research problems. • be able to choose and implement a methodology for their research proposal. • be able to collect, analyse and report data related to their field of study • be able to apply research methodologies on an advanced level					
Content This module introduces advanced scientific knowledge to conduct research at a Master's level with a focus on sustainability, urban development and governance of post-industrial cities. It allows students to determine methodologies that are appropriate for their areas of research interests related to the field. Furthermore, it familiarizes students with research design and implementation, equipping them with methods to develop research proposals. The module covers the whole research process. It establishes the fundamentals of research methods and ways to undertake a research project from beginning to end. Contents include: defining the research problem statement, developing research questions, ethical considerations in research, literature review, highlighting the systematic and meta-analysis, and the presentation of the basic methods of quantitative and qualitative data collection and analysis. The module emphasizes participatory action research, grounded theory, and qualitative and quantitative content analysis. In this track of the second semester at UNIZG, students are offered a module "Methodological Approaches and Tools for Understanding the Governance of Post-Industrial Cities". Other elective options can be chosen alternatively.					
Teaching methods/formats Lectures, self-guided learning, discussion forums and regular communication, online interactive activities, weekly help-desk. These will be blended or virtual classes.					
Mode of assessment Written examination (60 min.) or practical project					
Requirement for the award of credit points Passed exam					
Module applicability in other degree programmes NA					
Weight of the mark for the final score 5/120					
Module coordinator and lecturer(s) Dr. Samiha Chemli (UDeusto)					
Further information NA					

Semester 3



City Lab II (Field Salon)					
Module number 3-1	**Credits** 10 CP	**Workload** 270 h	**Term** 3rd Semester	**Frequency** winter term	**Duration** 1 semester
Lectures a) 5 x 1 day fieldwork (8 hours per day) b) 12 x 1 hour seminar c) 12x1 workshops			**Contact hours** 88 h	**Self-Study** 182 h	**Group size** 40-60 students
Prerequisites All students participating in the module are enrolled as master students.					
Learning outcomes During and after successful completion of the module, students will be able • to apply research skills to real-world scenarios in the post-industrial city • to assess the changing form and function of urban innovation and challenges in the post-industrial city. • to engage and interact with specialists across different professional and academic disciplines and with public audiences. • to critically assess complex urban conditions using trans-disciplinary and approaches. • to observe, analyse and record distinct urban fields and communicate their findings. • to synthesise key thematic and research ideas within a Group. • to demonstrate reflective practice, making intellectual connections across the learning objectives of the RE-PIC programme,					
Content Viewing the city as a living and learning laboratory – a space of dwelling, capital, production, innovation, and participation - this field-class will investigate how the post-industrial city is understood as a multiple that is entwined by physical, political, and historical limits and dynamic social, cultural, and ecological vectors. The aim of the module is to enable students to directly experience, observe, research, interpret and communicate the diverse expressions of the post-industrial condition as it is expressed in neighbourhoods, public institutions, organisations, and firms in the European City. The field-class is for-grounded in a series of seminars and workshops in preparation for the field-class visits in which methodological techniques, conceptual approaches will be formulated and deployed to address real-world					

problems at the field-class destination. To support these tasks, students will be tasked to recruit and dialogue with key urban stakeholders (e.g City Managers, Urban Innovators, Community Activists) in advance of field-visits. Once on site, the field-class pedagogy will require students to actively engage in a sequence of field-based investigations that enable them to concretely address urban challenges and best practices in the post-industrial European city. Drawing upon the research training modules in Year 1, students will collect data in urban field-sites using qualitative and quantitative research techniques, as well as critical interpretative methods and concepts.

Teaching methods/formats
Field Work, seminars, workshop, project work, group work and reflective practice.

Mode of assessment
Continuous Portfolio Based Assessment: 2 Coursework submissions. [1] Urban Portfolio: 40% [2] In field-class presentations: 40% [3] Reflective Journal:20%

Requirement for the award of credit points
The awarding of credit points requires the passing of each of the Coursework submissions [1], [2] & [3].

Module applicability in other degree programmes
NA

Weight of the mark for the final score
10/120

Module coordinator and lecturer(s)
Dr. Denis Linehan, Dr. Jason O'Shaughnessy, Dr. Therese Kenna

Further information
SDGs addressed in the module include: SDG10 Reduced Inequalities; SDG11 Sustainable Cities and Communities; SDG16 Peace, Justice, and Strong Institutions; SDG17 Partnership for the Goals.

Research Methods III: Seminar in Advanced Research Methods

Module number	**Credits**	**Workload**	**Term**	**Frequency**	**Duration**
3-2	5 CP	135 h	3rd Semester	winter term	1 semester
Lectures			**Contact hours**	**Self-Study**	**Group size**
Seminar in hybrid/online format			30 h	105 h	60 students

Prerequisites
All students participating in the module are enrolled as master students and have successfully completed the modules "Research Methods I" and "Research Methods II".

Learning outcomes
After successful completion of the module, students will be able to

- systematically identify, review and critically appraise relevant research papers
- evaluate and justify the utility of different research designs to address specific research questions
- apply knowledge of different research approaches on the design of research on post-industrial cities.

Students will also have

- developed skills as independent learners to support their continuing academic development and development as researchers
- developed excellent communication skills to express their point of view through both written and oral mediums.

Content
The International Seminar in Advanced Research Methods further develops students' understanding of research methods. The module will introduce advanced forms of quantitative, qualitative, geospatial, design and mixed methods approaches through presentations of research processes by researchers. This course will equip students with a detailed understanding of advanced research designs to support their ability to evaluate the utility of different research designs and methods and to support their own independent research projects. It features presentations from UNIC researchers as well as invited external speakers (30 minutes presentation, 45 minutes discussion) and will take place in a hybrid/online format. Supporting course content addressing a new topic will be posted online in advance of the presentation. Each class will include a seminar-style discussion of the

presentation, facilitated by teams of four to five students in the class who have prepared questions and recap the key discussion points. It is expected that all participants will contribute to the discussion by posing questions, raising issues and comments, listen closely to others, and respectfully engage with their views.

Teaching methods/formats

Seminar in hybrid/online format with sessions taking place in person with hybrid delivery or fully online (depending on the presenter availability), self-guided online learning, discussion forums and regular communication, multimedia and interactive activities, weekly helpdesk

Mode of assessment

25 % – group work – preparation and facilitation of a seminar (introducing the topic, preparing questions, moderating the discussion)

75 % – individual work – A 2,500-word essay critically evaluating research design. During the course, students will have the opportunity to engage in assignment preparation sessions and receive some formative feedback on their work before submission.

Requirement for the award of credit points

Passed exam

Module applicability in other degree programmes

NA

Weight of the mark for the final score

5/120

Module coordinator and lecturer(s)

Dr. Merav Kaddar

Entire RePIC staff and external invited speakers

Further information

SDGs addressed in the module include: SDG 4 Quality Education

Structured Learning and Engaged Research Placement (at UCC Cork)

Module number	**Credits**	**Workload**	**Term**	**Frequency**	**Duration**
3-3	15 CP	405 h	3rd Semester	winter term	1 semester
Lectures			**Contact hours**	**Self-Study**	**Group size**
Placement with host organisation			123 h	282 h	30 students

Prerequisites

All students participating in the module are enrolled as master students.

Learning outcomes

After successful completion of the module, students will be able to:

- define the goals of their placement project and manage it to success
- understand their professional roles and relationships in their placement
- demonstrate values, attitudes, skills, knowledge and critical understanding as outlined in The Council of Europe's Reference Framework of Competencies for Democratic Culture.
- identify societal challenges in partnership with city and societal stakeholders and effect change through co-learning and / or engaged research.
- apply knowledge, skills and competencies acquired during RePIC programme, particularly tracks 1, 2, 3 or 4, to the analysis and solution of societal challenges
- recognize 'research-mindedness' as a core professional competency
- communicate in a professional manner within the placement environment
- show initiative and leadership skills working independently and in teams
- reflect on the learning experience resulting from the placement
- identify personal and professional strengths and areas requiring improvement and development

Overview

RePIC's vision is to evolve a new network of urban thinkers with the capacity to impact and realise more sustainable urban futures through critically assessing complex urban and civic conditions and contributing to avant-garde thinking on the revitalisation of post-industrial cities. Its goal is to disrupt normative urban design orthodoxies through invoking experimental participatory modalities that serve as a catalyst for new learning and action practices in re-conceptualising the civic, cultural, and socio-urban fabric of the post-Industrial city and deduce new urban historiographies. Thus, the aim of the placement component of the programme is, immersive

experiential-based learning, to investigate under-explored social, civic, cultural, ecological, and public domains and begin to conceptualise new inclusive epistemological responses, that are multi-scalar, trans-disciplinarily and co-designed with city stakeholders.
Centring on *or across* UNIC City Lab Challenges, and aligned with the EU Urban Agenda, in the placement students are charged with producing a body of collaborative, change-orientated learning or research that engages *with* stakeholders in addressing mutually identified needs. Students will work with host organisation partners to co-identify a challenge or problem, which is then addressed by the student in a co-created and participatory manner. The focus is on the idea that city partners and the student benefit equally from the experience through mutuality and reciprocity. The placement provides a link between learning, research and an activist interventionist stance that bridges disciplinary knowledge, with practical and experiential ways of knowing. Through reflective opportunities in small online groups of UNIC Placement peers across different urban contexts, and in one-on-one meetings with RePIC advisors, a focus is on regular and on-going reflective opportunities that help students develop reflexive and analytical abilities, and that guide a continuous synthesising of practical experience and discipline-based theories.
Students are expected to mobilise the skills and knowledge acquired in Year 1 of the RPIC programme, particularly Tracks 1-4, and apply these in a professional placement. Students are encouraged to see the Placement experience as providing the context for the exploration of 'research problems', in partnership with city and societal stakeholders.
In line with the Placement Policy overseen by each respective RPIC partner, each student will agree a learning contract outlining the tasks and objectives of the placement with the host organisation and devise a plan which will support the delivery of the learning outcomes. The Structured learning and/or Engaged Research Placement will be jointly monitored by a RPIC staff member and an employee of the placement organisation.

Teaching methods/formats
Practical learning and/ or conducting an engaged research project, in consultation with a supervisor and host organisation linked to UNIC City Labs.

Mode of assessment:
Formative: Portfolio based assessment, which is a systematic, cumulative, and ongoing collection of materials that is produced by the student as evidence of his or her learning, progress, performance, efforts and proficiency. The materials are selected for inclusion following a set of guidelines, and the student will explain and reflect on the contents of the portfolio. A rubric will specify the assessment criteria for which the portfolio needs to provide evidence. It will specify the range of contexts from which the portfolio contents need to be derived:

- **Open-ended diaries, reflective journals and structured autobiographical reflections** or other methods which require the learner to record and reflect on their own behaviour, learning and personal development. These could for example also include nonverbal self-expressions, art works / installations, multimedia digital storytelling, photographs, film, VR, Vlogs, websites, audio or video recording and other forms that facilitate reflection and expression.
- **Student written reflective memos'** from one-on-one meetings with RePIC supervisors, demonstrating growth in reflexive and analytical abilities, synthesising of practical experience and discipline-based theories.
- **Observational and situational assessments** a) of the student in a range of different placement experiences completed by the host organisation b) student self-assessments, and c) students' reflections on peer feedback from online small group peer reflective work.
- **Learning report and / or engaged research report** that demonstrates a significant collaborative, interventionist, or change-orientated activity, that engaged societal stakeholders in addressing an identified challenge or problem in a co-created and participatory manner.
- **Other meaningful portfolio artefacts** negotiated with the student, host organisation and supervisor.

Requirement for the award of credit points
Portfolio based criterion-referenced formative assessment. The awarding of credit points requires the student to present a portfolio comprising personal reflections, reflective memos from consultations with supervisors, observational and situational assessments from the placement experience, and a significant learning and/ or research report.

Module applicability in other degree programmes
NA

Weight of the mark for the final score
10/120

Module coordinator and lecturer(s)
RePic Lecturers in each Partner University.
Placement component coordinated by City Labs and UNIC Stakeholder Organisations

Further information
SDGs addressed in the module include: SDG 4 Quality Education, SDG11 Sustainable Cities and Communities, SDG16 Peace, Justice and Strong Institutions, SDG17 Partnership for the Goals.

Structured Learning (at ULiège)					
Module number 3-4	**Credits** 15 credits	**Workload** 405 h	**Term** 3rd Semester	**Frequency** winter term	**Duration** 1 semester
Lectures In-depth courses with practicum			**Contact hours** 175	**Self-Study** 230	**Group size** 30 students

Prerequisites
All students participating in the module are enrolled as master's students, and have achieved the 1st year successfully

Learning outcomes
After successful completion of the module students will be able

- to deal with in-depth study topics on an advanced level
- to apply knowledge, skills and competencies acquired during their studies in the RePIC programme to the analysis and solution of placement problems or field-related ones
- to show initiative and leadership skills working independently and in teams through the practical projects
- to deal with issues and topics with an open-minded and multidisciplinary point of view
- to reflect on the learning experience resulting from the practicum
- to identify personal and professional strengths and areas requiring improvement and development.

Content
The module offers students the opportunity to mobilise the skills and knowledge acquired in Year 1 of the RePIC programme and apply these in additional module (structured learning). The module contains in-depth courses with practicum exclusively. The students study the offered courses along with supervised practical knowledge. They exchange and work together with students from other teaching programmes and master's degree, reinforcing diversity of profiles. The mix of courses includes a variety of subjects that contribute to the approach, study, understanding and practice of the redevelopment of post-industrial cities, and covers a range of disciplines such as mobility and transport, urban planning, environment, spatial planning, urban engineering, resilience and urban economy.
The proposed courses are:

- Urban planning and transportation (ULiege)
- Land rehabilitation in urban environments (ULiege)
- Participatory Design at Urban Scale (ULiege)
- Land and real estate markets (ULiege)*
- Landscape and ecological implications of urbanisation (ULiege)*

*Optional course to reach 15 ECTS.

Teaching methods/formats
Seminars, workshops, studio-based learning, project work, group work, guest lecturing, field trips, project-based learning

Mode of assessment
Depending on the courses; the assessment can take different forms:

- Oral examination
- Written examination
- Presentation of an individual or group project

Requirement for the award of credit points
The awarding of credit points requires passing the examinations depending on the courses

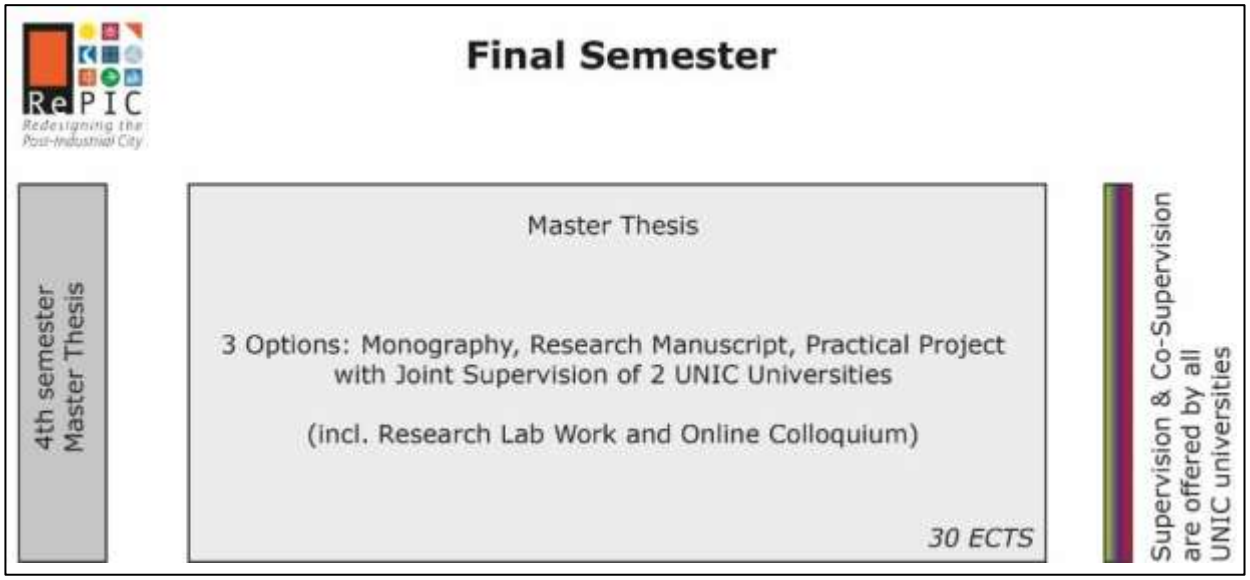
Module applicability in other degree programmes
N/A

Weight of the mark for the final score
15/120

Module coordinator and lecturer(s)
Prof. Dr. Jean-Marie Halleux (ULiège) and RePIC staff

Further information
SDGs addressed in the module include: SDG 4 Quality Education; SDG 9 Industry, Innovation and Infrastructure, SDG10 Inequality, SDG11 Cities, SDG 13 Climate Action, SDG 15 Life on Land, SDG17 Partnership for the Goals.

Semester 4



Master Thesis Module					
Module No. 4-1	**Credits** 30 CP	**Workload** 810 h	**Term** 4th Semester	**Frequency** each semester	**Duration** 1 semester
Lectures Individual supervision Master Thesis Online Master Colloquium			**Contact hours** Individual supervision meetings	**Self-Study** 810 h	**Group Size** Individual groups compiled by project interest
Prerequisites All students participating in the module are enrolled as master students. Formal: 60 CP (minimum requirement)					
Learning outcomes Having successfully passed the module, students • will be able to conduct research integrated in a research group of the UNIC consortium (optional: and additional external partners). • will be able to develop, plan, and deliver a final thesis which concerns an up-to-date research question on redesigning the post-industrial city and applies a suitable methodology.					
Content The master thesis is an individual and final project of the two-year master programme. It finalizes the academic education on a master level. The students have the right to propose two supervisors (reviewers). The supervision process is intended to be a cross-border cooperation between the students and supervisors from two different UNIC universities. The thesis addresses a current research problem and is integrated into running research projects within the UNIC consortium. The thesis is accompanied by regular meetings with the supervisors and includes field or lab work. Each thesis is presented by each master candidate (15 min. oral presentation), with a following multidisciplinary discussion (supervisors, master students, other RePIC staff members, guests). This colloquium is held in a virtual conference format to guarantee the common participation of the staff and student members.					
Teaching methods/formats Thesis supervision, research-oriented field and/or lab work supervision, group discussions					
Mode of assessment Master thesis supervised and reviewed by 2 members of the RePIC staff (from 2 UNIC universities, an external practice partner or researcher can be included as third supervisor and reviewer) Option 1: Dissertation (about 20,000 words) Option 2: Research manuscript aiming at publication in an academic journal (about 10,000 words), Option 3: Practical project accompanied by documentation and written analysis					
Requirement for the award of credit points					

Submission in due time, passed exam based on two (optional three) individual reviews certifying a “satisfactory” performance. A thesis submission after the given deadline leads to a fail. Presentation of the Master Thesis in the Master Colloquium
Module applicability in other degree programmes NA
Weight of the mark for final sore 30/120 (100% Master Thesis, colloquium must be passed, without a mark)
Module coordinator and lecturer(s) Person in charge of the module: PD Dr. Dennis Edler (RUB) Teaching staff: All graduated doctors affiliated to the RePIC master programme
Further information NA

Additional Electives – Language Courses

<table>
<tr><td colspan="6">Language Course</td></tr>
<tr><td>Module number</td><td>Credits
5 CP</td><td>Workload
135 h</td><td>Term
1st -4th Sem.</td><td>Frequency
each semester</td><td>Duration
1 semester</td></tr>
<tr><td colspan="3">Lectures
a) Seminar(s)</td><td>Contact hours
108 h</td><td>Self-Study
27h</td><td>Group size
30 students</td></tr>
<tr><td colspan="6">Prerequisites
Formal: All students participating in the module are enrolled as master students.
Special: depending on chosen course</td></tr>
<tr><td colspan="6">Learning outcomes
European language level C1:
Understanding: Students will
• be able to understand extended speech even when it is not clearly structured and when relationships are only implied and not signaled explicitly
• be able to understand long and complex factual texts, appreciating distinctions of style.
• be able to understand specialised articles and longer technical instructions, even when they do not relate to their field of study.

Speaking: Students
• be able to express themself fluently and spontaneously without much obvious searching for expressions
• be able to use language flexibly and effectively for social and professional purposes
• be able to formulate ideas and opinions with precision and relate their contribution skillfully to those of other speakers
• be able to present clear, detailed descriptions of complex subjects integrating sub-themes, developing particular points and rounding off with an appropriate conclusion.

Writing: Students will
• be able to express themself in clear, well-structured text, expressing points of view at some length
• be able to write about complex subjects in an essay or a report, underlining what they consider to be the salient issues
• be able to select a style appropriate to the reader in mind.

German European language level min. A 2
Understanding: Students will
• be able to understand phrases and the highest frequency vocabulary related to areas of most immediate personal relevance
• be able to catch the main point in short, clear, simple messages and announcements
• be able to read very short, simple texts.
• be able to find specific, predictable information in simple everyday material e) can understand short simple personal letters.

Speaking: Students will
• be able to communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar topics and activities
• be able to handle very short social exchanges
• be able to use a series of phrases and sentences to describe in simple terms their educational background

Writing: Students will
• be able to write short, simple notes and messages
• be able to write a very simple personal</td></tr>
</table>

Content Students will have an opportunity to learn another language relevant in one of country of the RePIC-Partners corresponding at least European language level A 2 or equivalent The students will achieve English/French/Dutch/German/Croatian/Finnish/Irish/Turkish/Spanish language proficiency to meet a) the international standards of scientific work and communication such as understanding written and spoken scientific (and technical) English and to present data without problems corresponding European language level C1. b) Specialized technical language courses will allow to improve their professional vocabulary and communication skills.
Teaching methods/formats Online or on campus
Mode of assessment Course attendance and active participation, preparatory and follow up work for classes Oral and written examination.
Module applicability in other degree programmes NA
Weight of the mark for the final score NA
Module coordinator and lecturer(s) Language Centers of the Partners
Further information NA