

MASTER IN SUSTAINABLE URBAN TRANSITIONS 2015/2016

Nordic master programme.

1 Goals

The Nordic Master Programme in Sustainable Urban Transitions (NMP SUT) is a Nordic double degree master programme which has been developed by the Nordic Five Tech (N5T) collaboration. N5T is an alliance of the five leading technical universities: Aalto University (Aalto), Chalmers University of Technology (Chalmers), Royal Institute of Technology (KTH), Norwegian University of Science and Technology (NTNU) and the Technical University of Denmark (DTU). The goal of the N5T alliance is to utilize shared and complementary strengths and create synergy within education, research and innovation.

Perspectives

These different fields of application forms a new joint subject area: planning and design for Sustainable Urban Transitions, where systems thinking, participative and scenario approaches, risk reduction, research by design and generative planning are key concepts. Within this subject area, the aims of the programme are to:

- Provide opportunities for joint learning and understanding of urban planning, design and management as highly complex transition processes, laden with both short-term and long-term uncertainties.
- Support integrated learning and capacity building targeting the variety of involved professionals.
- Show how sociotechnical systems theory, participative and scenario approaches, area-based planning and practice-based research are key concepts in sustainable urban transitions.
- Provide opportunities for learning in different contexts (North and South) and fields of application at the five participating universities, exploiting the strong complementary specialties of the N5T partners to foster highly qualified candidates for public administration, industry and research within sustainable urban transitions.
- The programme is active at four different levels of urban transitions: individual inhabitants/users, neighbourhoods, infrastructural systems, and urban regions. These levels are represented by the programme's five study tracks and the learning outcomes differ depending on study track. Details of the programme's learning outcomes are to be found in the study track descriptions.

Level

The NMP SUT is a two-year 120 ECTS Nordic double degree master programme coordinated by Chalmers and based on the particular expertise of the participating universities. In the double degree programme students study one year at two different universities following a Year one university/Year two university pattern:

- Year one university, 1st and 2nd semesters
- Year two university, 3rd and thesis semesters

The length of the study period in each university corresponds to 60 ECTS.

Relevance

Since continued urbanization will be a major trend globally in the coming decades (from today's three billion to the anticipated six billion urban inhabitants by 2050), future career opportunities for successful NMP SUT students cover a wide field of potential employers and/or clients in both OECD and non-OECD countries. The five study tracks reflect different but equally valid ways to address critical challenges linked to urban transitions. Career opportunities will thus be found in the public sector (agencies for urban/regional planning, management, and governance), in development institutions (local and international), and in both NGOs and consultancy firms active in the field of urban transitions. As the NMP SUT is integrated into the research environments at the five participating universities it also provides a solid platform for pursuing an academic career.

2 Learning outcome (Urban Ecology)

After completing this study track, the candidate should have:

Knowledge

- Knowledge of two specific, underprivileged neighbourhoods (one in a developing country, the other in a Nordic country), their territorial strength in terms of organisation, resources, skills and access to land, but also their struggle, and changing livelihood conditions.
- Experience in how to address both non-planned and planned neighbourhoods in urban centres and fringe areas for the purpose of livelihood improvements, tenure security and urban upgrading in contexts of conflicts of objectives of equity, environmental sustainability and civil society interests.
- Understanding of specific cases of building strategic responsibility and action at higher levels of urban governance and management in terms of 'scaling up' local development initiatives.
- Knowledge of integrated action planning and integrated local planning processes building both on local defined priorities and local ownership and higher levels strategic action.

Reflection

- Competence in applying, examining and analyzing participative tools.
- Ability to use geographical information systems (GIS) as an important tool in urban mapping, planning and management.

Practice

- Awareness of the struggle of the urban poor in terms of entitlements to land, work, and participation in the civil society, and overall livelihood improvements.
- Understanding of what are contextual and general issues in local and higher level urban transition in both developing and Nordic countries as well as their localised and interrelated nature.
- Knowledge on the interface and the potential conflicts between targeted strategies addressing urban poverty and urban environmental strategies.

3 Target group

The programme is open to students with a bachelor in Architecture, Landscape Architecture, Planning (such as Physical Planning and Human Geography with a profile in planning), and Engineering. However, depending on their background (bachelor degree and professional experiences) students can only apply to certain study tracks and, hence, to certain universities (see diagram here). There are a limited and predefined number of student places in each study track and for each category of student (i.e. Architecture, Landscape Architecture, Planning, and Engineering).

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4 Staff competences

Will be based on the current staff at the Department of Urban Design and Planning with competence within:

- Process knowledge, urban governing, governance
- Urban fabric and infrastructure
- Transportation
- Urban design and land use planning
- GIS
- Planning theory
- Landscape architecture (lacking competence)

Need competence from planning in developing countries within informal processes.

5 Education /learning

The programme will start autumn 2012. A group of 30 students will be distributed between the universities. NTNU will get 6-8 new students every year.

6 Funding

By the time there is no special funding for the programme.

7 Research

Both the topic, Sustainable Urban transitions, and the cooperation with the leading Nordic universities, make a excellent basis for research within the European research programmes, national programmes and others.

8 Location

Chalmers will coordinate the programme and the students will at NTNU be distributed at existing courses with MUEP, MFP and MA.

The programme will be an interesting basis for a broad, multidisciplinary research programme within Sustainable urban development.

Possible convergence: **Sustainable urban development and transition**