INTEGRATED INFRASTRUCTURES
• are functional, technical and architectural well designed & built structures
• are appropriately integrated in a larger transport or water system/network
• are appropriately embedded in its spatial and environmental context
• connect different scales and bridge morphological barriers
• connect regions & places, cities & neighbourhoods, communities & people
• support societal functions & programmes, economic sectors & markets
• enable users to perform their present and future social and economic activities
• contribute to accessibility, livability, economic competitiveness of cities/regions
• contribute at the end to welfare, prosperity and safety for societies

But how to design a bridge, fly-over, underpass, dike, route, metro or train station within an urban or natural environment?

In this comprehensive minor you will learn and experience an integrated design approach to solve actual design issues from practice by multidisciplinary teams in a studio setting. For design and engineering students an opportunity to develop your understanding and skills in the challenging world of transport and water infrastructures.
It offers you a comprehensive and coherent programme with interrelated courses.

It combines theory and practice of integrated design for transport and water infrastructures.

It explores societal issues and contexts and teaches you to design innovative solutions on different scales from a variety of perspectives and various disciplines.

It has lecturers from academia and professionals from practice.

It stimulates multidisciplinary team work in a studio setting.

It develops your understanding of actual infrastructure design and your design skills in an interfacially, multidisciplinary and collaborative context.

J.J.C. Bradfield & Dorman Long Middlesbrough

Student work – Course year 2015/2016

Lectures, exercises, presentations, readings, discussions in studio setting

Individual exercises and group work

VT 4

Analysis, understanding and assessment of urban infrastructures as combinations of complex urban systems.

Focus on traffic system, flood defense system and green/public space system.

Considering three scales – city, zone, section – and interactions and effects of an intervention.

Lectures, exercises, presentations, readings, discussions in studio setting

Individual exercises and group work

Student work – Course year 2015/2016

Introduction to the themes of the minor from various perspectives

- Historical, theoretical, practical and methodological framework of integrated design for transport and water infrastructures
- Current manifestations
- Future design challenges

Essay in which students individually are to reflect on an infrastructure and the notion of Integrated Design

3 ECTS