



# EXCHANGE STUDY PACKAGE CONSTRUCTION MANAGEMENT AND ENGINEERING

The exchange package Construction Management and Engineering is divided into four different courses. During the first half of the semester you will follow “Planning and Process Management” and “Supply Chain Management & ICT”. You will learn about the planning of various construction projects and the organization of the supply chain. During the second half of the semester, the courses “Project Management” and “Markets, Organisations & Innovations” are taught. You will learn how projects can be effectively and efficiently managed. In addition, you will learn about market dynamics in the Construction Industry and the influence of different stakeholders on organisations.



## WHAT IS AN EXCHANGE STUDY PACKAGE?

Exchange Study Packages are balanced, coherent, well-structured, and self-contained sets of courses at a final Bachelor year academic level. Choosing one of these packages means you do not have to worry about selecting the right courses or managing your calendar to fit all of your classes. Simply apply for a package that suits your academic background and interest to be ensured of a well-balanced exchange programme, often consisting of 30 EC. These packages are generally accessible to students who have successfully completed the first two years of their Bachelor programme.

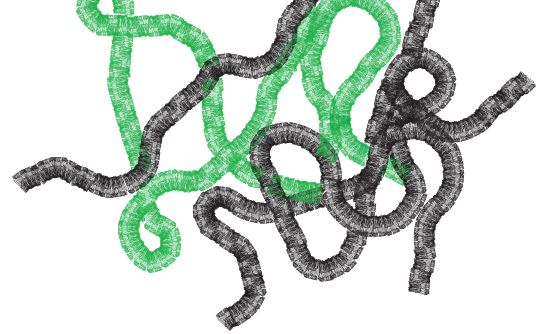
## EXCHANGE STUDY PACKAGE

### First half of semester

### Planning and Process Management (7,5 EC)

This course focuses on transport planning and process management of infrastructure projects and area developments. Current developments in cities force authorities to plan, manage and monitor their transport and infrastructure systems more accurately. This

course has two main parts: strategic transport planning and process management. The first part provides an overview of the role, contents and implications of strategic transport planning. The course follows the elements of the policy cycle. The transport policy cycle represents an iterative process with many actors going through the stages of: problem recognition, formulation of policy objectives, appraisal of policy options, implementation, monitoring and evaluation. The second part, process management, focuses on the governance of intricate problems in urban planning and area development. It typically revolves around large-scale infrastructure projects, e.g. airports, rail links, or ports. This course aims at providing students with basic concepts, skills, and insights needed to understand the nature of interaction between actors regarding the initiation and development of complex large-scale infrastructure projects.



*By failing to  
prepare, you are  
preparing to fail.*



### **Supply Chain Management & ICT (7,5 EC)**

This course focusses on the opportunities for the application of supply chain management concepts from other industries to the construction industry with the aim to improve supply chain management and materials transport and distribution between manufacturers and construction sites. Basic similarities and differences between supply chains in the construction industry and supply chains in manufacturing industries are analysed. The focus is on supply chain and purchasing management issues in the relation between construction firms and their suppliers. Attention will be devoted to the role of building information modelling (BIM) in improving construction supply chain management.

### **Second half of semester**

#### **Project Management (7,5 EC)**

This course provides students with the theoretical knowledge necessary to understand how projects can be effectively and efficiently managed. In all contemporary industry sectors and specifically in construction, projects are becoming increasingly complex and challenging because of accelerated advances in technology, new business models, forms of collaboration, availability requirements, and an augmented demand to deliver economic value and a competitive advantage. Managing projects in this environment requires strong leadership skills and proficiency in project management knowledge and practice to be able to achieve the project and organisational objectives safely, on time, within budget and to the satisfaction of stakeholders. The course is designed to provide students with knowledge in the practice of managing construction projects in order to enhance their career options and prepare them to move into management roles by developing their professionalism, versatility and leadership in an environment of constant change.

#### **Markets, Organisations & Innovation (7,5 EC)**

Central in this course is the way and pace the stakeholders in the construction industry deal with competition,

and develop and absorb new technologies (eg ICT, BIM, GIS) and new challenges (eg sustainability, social responsibility). This knowledge and understanding is put into the context of the strategic choices of the stakeholders, and the international initiatives undertaken to reform the construction industry. The course focuses on the issue of changes in contract types and procurement, and the effects on strategies and innovation in agencies and firms. It explains the relationships between market regulation, competition, market dynamics and innovation at the level of the industry and the organizations within. It also addresses the issue of business paradigms and strategic management for firms in the construction industry.

Detailed Learning Goals of all the courses can be found in the Osiris Course Catalogue.

#### **MORE INFORMATION**

##### **TUITION FEES**

To be paid at home institution.

##### **ADMISSION CRITERIA**

Two years of Bachelor-level in Civil Engineering or equivalent.

##### **STUDY LOAD**

30 EC

##### **START**

Fall Semester

For more information about this Exchange Study Package, contact the Departmental Exchange Coordinator of the **Faculty of Engineering Technology**  
[utwente.nl/go/exchange-coordinators](http://utwente.nl/go/exchange-coordinators)