UNIVERSITY OF TWENTE.

Bachelor Final Project Civil Engineering

Practical training is essential to an engineering study in order to prepare for future jobs. Only through working experience students are able to link knowledge and skills from their education to real-life situations. Moreover practical experience offers insights no book can offer better. It is for these reasons that a project for about 10 to 12 weeks outside the walls of our university is an obligatory part of the Bachelor's programme of Civil Engineering of the University of Twente, the Netherlands.

Civil Engineering. Civil Engineering at the University of Twente is a multi-disciplinary study programme in which students not only cover the traditional aspects of Civil Engineering (mathematics, mechanics, hydrology etc.) but also the more management/process oriented aspects (law, organization, project management, policy, economics). The programme consist of modules organised in 10-week fulltime thematic units, every module has a theme with different subjects and learning activities.The students have to finish their Bachelor's programme through an approximately 3 months lasting external graduation assignment resulting in their BSc-thesis. By doing so after 3 years of study our students are capable of participating as research/project assistant in rather complex projects. The Bachelor's programmes at the University of Twente are offered in English, so both Dutch and international students have to carry out an external assignment to complete their studies.
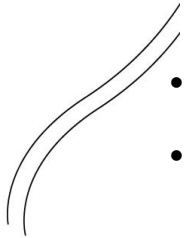
Goals of the graduation assignment The main goals of the external assignment are:
- Be able to apply knowledge and skills with respect to planning/management and/or design and/or modelling in practice;
- Be able to work systematically and according to self-made research plan and report adequately;
- Be able to function in the work field of a civil engineer by showing adequate verbal, writing and social-communicative skills
- Besides the student gets acquainted with the future work area of civil engineers giving a starting point to his/her future career choices.

Content of the graduation assignment The student should work individually on an assignment. Premise is that the assignment should be of use to your organisation. For this reason the assignment is usually defined by you as part of a bigger project but of course the student might be involved in formulating the assignment.
The assignment proposal is discussed with a member of the academic staff of Civil Engineering who will act as internal supervisor. Before starting the project the student must prepare a detailed and documented project plan and discuss this with the supervisor. Only when the project plan is satisfactory the student is allowed to start the project.

The assignment should cover at least one of the following problem areas:
- Planning/management of (part of) the design, the construction and/or maintenance of a civil object/system
  Example: risk analysis of phase X of project Y
- Making/using (mathematical) models in relation to civil objects/systems
  Example: modification and use of model X to analyse data on river Y
- Making a functional design for (part of) a civil object/system
  Example: analysing user requirements for project X

Supervision by your organisation It is expected that the student will be introduced into the organisation in the same way as a new colleague and that the student will have an own workplace within the organisation. One of your staff members should act as the student's external supervisor and it is the intention that at the start of the project the external supervisor will participate in a joint consultation (the progress check) with the student and the internal supervisor in which the decision is made whether the student's progress enables the student to start with the project. Furthermore we suppose that the student and the external supervisor will discuss progress at least once a week and that the external supervisor will comment on the draft paper. We hope that the external supervisor will participate in the examination session to finish the project formally. The external supervisor has an advisory role in the examination session.

Supervision by the university During the project a member of the academic staff who is an expert on the subject of the assignment will supervise the student. The internal supervisor will keep in touch with the student as well as the external supervisor from your organisation to check progress.

Reward and assurance Premise of the University Twente is that the student should not have too many extra costs during the project. We therefore ask your organisation, if possible, to give the student an allowance for example for local transportation and/or lodging. Liability insurance is covered by the University of Twente. Accidents are not insured by the university and we hope that the student can be covered by the organisation's accident insurance. We recommend your organisation to address issues like allowance, insurance, working hours etc. in an agreement with the student and the University of Twente and for this we have developed our own contract that can be used.

Paper and confidentiality The student is asked to write a paper of approximately 30 pages on the assignment. At the end of the project the draft of this paper should be finished. Comments by the internal and external supervisor will be incorporated into the final version. The final report will be included in the library of the University of Twente, the purpose of the archive is to give future students an impression of possible assignments and also to show the outside world what our students are involved with and which organisations we work with. If confidential information is included in the report, clear agreements will be made so that this information will not be accidentally published.

More information For more information you can take a look at https://www.utwente.nl/en/ce/bachelor-programme/bachelor_thesis which also contains an overview of completed graduation assignments to get an idea of what our students are capable of and in addition, you can contact:

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