

Graduation Semester

**HBO Information and Communication Technology
(full-time)**

Syllabus

Study load : 30 credits (840 study load hours)
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Year of study : Year 4

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1. Introduction

The last semester before you obtain your Bachelor of Science is dedicated to graduation. In this semester you will demonstrate that you can carry out an assignment in your future profession.

The final project forms part of the graduation semester. In this semester, students provide evidence that they have met all the competence requirements at higher professional level in the form of the final project and an assessment. The final project is concluded with a written report and an oral presentation and defence. Both the report and the presentation must provide clear information on how the project was carried out and the result of the work done.

The final project is therefore a test of competence in independently carrying out a project in professional practice. Your project must be in line with one or more professional tasks of your track. The final project itself must give you the opportunity to demonstrate as a minimum the following competences at higher professional level: Professional Competence, Research Skills and Communication Skills. This may for example involve:

- making a product, system or part of a system;
- analysing a problem and distilling research questions designed to lead to the resolution of that problem;
- drafting an advisory report on a particular problem;
- writing a report with reference to research carried out.

The other competences are demonstrated in the portfolio assessment that follows.

2. Learning objectives

During the final project you demonstrate your ability to perform as a professional in a complex environment at higher professional level. It is important that you are able to reflect independently on this performance. It provides information on the competences you have and those you have yet to develop, so you know what you are currently capable of and what you still have to improve. The 'learning aptitude' competence, for example, is evident from the ability to apply new technologies and/or knowledge. To carry out research independently ('research skills' competence) you must be able to formulate a statement of a practical problem, ascertain the knowledge required for a solution to a problem, analyse a practical situation, collect and interpret data, etc. By devising learning objectives for yourself and formulating them according to SMART criteria, you will be better able to give substance and direction to the further development of your competences in the course of the completion of your studies.

3. Programme

3.1. Content/entry requirements

You may start on your final project when you have your first-year certificate and you have:

- obtained all your second-year credits;
- successfully completed your work placement;
- obtained at least 200 credits in total (you can only apply for your graduation assessment when you obtained 210 credits in total);
- obtained the agreement of your careers adviser;
- received approval of your project form the graduation committee.

You can write the report on your final project in Dutch or English. If you write it in English, please notify the study supervisor accordingly. If you intend to write the report in another language altogether, please consult the graduation committee beforehand.

3.2. Procedure

The graduating student is expected to find his or her own final project company. You can do this in the same way as finding a work placement, using the work placement database which can be found in [A-Z](#). You can approach companies listed in the placement database by letter or by email, or you can use your own network (work placement, family, friends) to contact a company where you think you will find a suitable final project.

The final project lasts five months. It must be fully completed nine months after its start date. If special circumstances mean you are unable to meet the deadline, you must submit a substantiated request to the [graduation committee](#) in which you apply for an extension of your project; the graduation committee will then reassess your project for topicality.

Once you have found a company and have reached agreement with it, you must prepare a brief description of the final project in conjunction with someone from the company.

The project is recorded on the 'Graduate Project Application Form', which can be downloaded from A-Z Studenten/Afstuderen HBO-ICT. Send this form digitally to the graduation committee for approval (afstudeercommissie.HBO-ICT@hva.nl). On this form, in addition to the company details and description of the project, you must formulate a justification on which the committee can base its assessment to approve the project.

The content and nature of your final project depend on your track. Note that your final project differs from your work placement. During a work placement you can carry out a number of different activities, while the final project is about one clearly defined project.

The final project can be part of a larger project, but the student's part must always be a clearly defined whole. If you take part in a major AMC project, for example in building a blood pressure measuring system, then it is fine if your contribution consists of the development of the data acquisition part. This is, after all, a clearly defined subproject. In this example it would therefore not be right if the project were to be formulated as 'cooperating on the production of a blood pressure

measuring system'. The formulation must make clear that you have worked independently on the completed whole of the data acquisition system. A good formulation would be 'the development of a data acquisition system that forms part of a blood pressure measuring system'.

The final project often consists of the development of a system or sub-system, in which analysis of the context, research into and application of the most suitable methods and techniques and testing and maintaining the system are among the important parts.

The final project can also be advice at tactical or strategic level, including the consequences for implementation (e.g. organisational embedding and financial substantiation).

The project requires the use of relevant topical (scientific, international) insights, concepts and theories. This project is complex in nature, in other words:

- The problem must be analysed and defined in detail.
- There will be several solutions possible: there is no standard solution; the outcome is unpredictable.
- The problem can be approached from several different angles.
- The problem is of a multidisciplinary nature.
- There are several different stakeholders.

Practice-based research has become increasingly important in higher professional education in recent years. All graduates of universities of applied sciences are now expected to be able to carry out practice-based research systematically. This must also be evident from the final project, which means that there must be scope to do research during the final project and to report on it in the final project report. This can usually be done as part of the original project and enriches the outcome.

Completing your studies in your own business

There are a number of conditions you must satisfy:

- You must have taken part in one of the following modules: Creative Start-ups subject semester, Business or Entrepreneurship minor.
- You must have an approved business plan before the start of the final project. This must be presented to the graduation committee. It determines whether you meet the required level.
- A lecturer is appointed by the degree programme to supervise the student in the role of company supervisor.
- It may not be a project in collaboration with another student. Where two students collaborate on a large project, each student must be responsible for a clearly distinguishable part. Two different final projects must be formulated and this must therefore be clearly articulated in the two separate final project reports.

3.3. Recommended literature

In addition to the track-specific literature you have used for the different modules in your curriculum, it is advisable when writing your final project to use reference works in the area of reporting and research skills. Books you have acquired for this include:

- Bonestroo, W.J., Meesters, M., Niels, R., Schagen, J.D., Henneke, L., Turnhout, K. van (2018): ICT Research Methods. HBO-i, Amsterdam. ISBN/EAN: 9990002067426. Available from: <http://www.ictresearchmethods.nl/>
- Verschuren, P & H. Doorewaard (2015). Het ontwerpen van een onderzoek. Boom Lemma, Amsterdam (5e druk of later). of, in het Engels: Verschuren, P & H. Doorewaard (2013). Designing a research project. Boom (English)

3.4. Supervision

During your final project you will receive support from the company supervisor, the study supervisor and the supervisor of the peer review meetings. Their tasks and roles are explained here. Make agreements with your company supervisor and study supervisor in good time. You will be invited to the peer reviews by the work placement office.

The **company supervisor** who supervises you will be from the client organisation. The company supervisor is often also the client for the final project, although this is not a requirement. To ensure that the company supervisor can supervise you at the right level, he or she is expected to have a minimum of higher professional level (in other words, a relevant higher professional diploma or equivalent practical experience). It is important for the company supervisor to ensure you can carry out your project properly: that you have sufficient information at your disposal and have access to employees who are important for your research. Make agreements about the supervision with your company supervisor in advance.

The graduation committee allocates you a lecturer as **study supervisor**. The study supervisor:

- gives advice on carrying out the project (as regards content and process);
- gives feedback on results of a section and draft text;
- decides (in conjunction with the assessor) on admission to the final project meeting;
- assesses (in conjunction with the assessor, the company supervisor and any external expert) the defence and final project report.

The initiative for supervision throughout the final project period lies with the student. As soon as you have been allocated a study supervisor, make an initial appointment with them to discuss the project and to agree on what you expect from the supervision.

The study supervisor will visit the final project company during the orientation period. The study supervisor will then only visit if there is reason to do so. This is because students are expected to perform as an independent professional. If there are problems with carrying out the final project or when this is desirable for some other reason, you can ask your study supervisor to visit your final project company.

It is highly recommended that you start to carry out the project by writing a **plan of action**. You discuss this plan of action with both the study supervisor and the company supervisor. It gives you a point of reference in carrying out the project. Append this plan of action to your final project report.

On two occasions during your final project you will be invited to a **peer review** by the work placement office, with a view to writing your final project report. The agreement with your final project company is that the company will give you the opportunity to attend these peer reviews.

1. Around weeks 2–4. This peer review meeting focuses on the research question. You must upload the first draft of your final project with the research question section to VLO not later than one working day before the meeting.
2. Around weeks 7–10. The second peer review meeting looks at whether you are on the right path and will give you feedback on the report. You must hand in the draft version via VLO a week before the peer review meeting.

After each peer review you will discuss the feedback received with your study supervisor. Somewhere around Week 15 your study supervisor will decide whether a ‘go’ or a ‘no go’ will be given for your final project meeting. You can also approach your study supervisor for interim advice. Your study supervisor makes a final decision on whether your final project report is of sufficient level to allow the final project meeting to go ahead in conjunction with your assessor and the external expert not later than three days before your final project meeting.

3.5 Lecturers concerned and accessibility

When submitting your final project to the graduation committee, you may indicate a preference for a study supervisor. You can approach the lecturer yourself in advance to ask whether they will accept the supervision. Please indicate this on your application form. Ultimately, the graduation committee will decide who your supervisor is going to be, but if a lecturer has agreed to, your preference will be adhered to if possible.

3.6 Planning

Overview of components and global planning

The week numbers refer to the weeks when you work on your final project, counting from the first week that you start on your project. This is for guidance, except for the week in which you upload the application form for your final project meeting in OnStage.

Week	Activity/product	Student actions
Before start	Look for final project	<ul style="list-style-type: none"> • Determine which competences in the final project and which in the portfolio are proven • Submit final project application form to the graduation committee for approval
1–2	Agreement with study supervisor	<ul style="list-style-type: none"> • Schedule agreement on the programme with study supervisor in Week 1 or Week 2 • Upload approved and signed application form in OnStage
2–3	Plan of action	<ul style="list-style-type: none"> • Draw up plan of action and consult with study and company supervisors

2–5	Peer review meeting 1	Formulate research question and submit
5	Visit of study supervisor to company	<ul style="list-style-type: none"> • Schedule appointment with study supervisor and company supervisor at final project company • Discuss research question and peer review feedback
7–10	Peer review meeting 2	Submit draft version of final project report
9–10	Contact with study supervisor as a result of peer review feedback	Process peer review feedback
11	Draft report	Upload draft report to OnStage
14	Portfolio	Upload portfolio to OnStage for feedback
15	Go/no go meeting with study supervisor	<ul style="list-style-type: none"> • Schedule ‘go’/’no go’ meeting in good time • Final project report 70% complete • If go, upload final project meeting application form to OnStage
18	Final version of final project report	Upload final version of project report in OnStage
20	Final project meeting with assessment	Submit final project presentation via OnStage

4. Testing and assessment

Your graduation semester is tested by an assessment. This assessment has two purposes.

Firstly, the assessment acts as a test. This is the important purpose. The assessment determines whether you have mastered the competences at higher professional level on the basis of predetermined criteria.

Secondly, the assessment is development-focused. The assessors give you feedback on your performance. You can use this feedback to give direction to your development: after the degree programme and in your subsequent career.

4.1. Products

You put all your products in your file in OnStage (onstage.hva.nl). This file is created by the work placement office at the start of your final project.

Portfolio

During your final project you assemble a portfolio in which you put documentary evidence of the competences that you do not demonstrate in your final project report. They may be: **learning aptitude, social orientation and professional ethics** and finally **collaboration**. Choose the best and most complex examples from the preceding periods; the documentary evidence may also come from experiences outside your graduation semester, such as your minor and/or specific theme semester. Use the competence forms and the STARRs for this, see A-Z Students/Graduation (full-time) for the forms.

Learning aptitude can be demonstrated in two ways. The choice is the student's:

- Option 1: evidence has been provided during your final project. You write a report reflecting on the preceding final project process and attach it as an appendix to the final project report.
- Option 2: evidence has not been provided during your final project. You write a STARR in which you demonstrate this. The STARR goes in your portfolio.

Social orientation and professional ethics can be demonstrated in two ways. The choice is the student's:

- Option 1: evidence has been provided during your final project. Your evidence or experience report is an appendix to your final project report.
- Option 2: evidence has not been provided during your final project. You write a STARR in which you demonstrate this. The STARR goes in your portfolio.

You demonstrate the **Collaboration** competence by means of two STARR forms and two feedback forms, of which not more than one may be completed by a fellow student. You include the forms in your portfolio.

The formal completion of your portfolio takes place during the final project meeting.

The checklist portfolio is to be found in DLO-course AFSTUDEEROPDRACHT.

Final project report

The **professional competence, research skills** and **communication skills** competences are always considered at your final project meeting and cannot be demonstrated at the 'go'/no go' meeting. Your final project assessment form has been tailored to this.

Submit the final project report and any other documentation (such as guides, technical documentation, research report) no later than two weeks before the date of your final project meeting through your file in OnStage. You will find instructions on writing the final project report in DLO (course AFSTUDEEROPDRACHT).

For the rules regarding the use of AI tools, see 'ChatGPT & other AI tools Do's and Dont's' in the DLO course AFSTUDEEROPDRACHT.

Your study supervisor and study assessor receive the products through OnStage. The work placement office takes care of distribution to the external expert. You are yourself responsible for ensuring that your company supervisor receives a copy in good time.

Presentation

Submit your presentation via OnStage no later than the day of your final project meeting. Matters covered during the final project presentation are:

- The final project and a detailed analysis thereof
- The scope of the final project
- Preconditions and underlying principles
- Process of carrying out the project
- The designs made and their justification
- Methods and techniques and possibly a reflection on their relation to the programme guidelines
- The development process or the approach followed
- Description of the products and interim products
- Choices made and any other options
- Conclusion/end result.

4.2. The final project meeting

The final project meeting (afstudeerzitting) takes place 19 or 20 weeks after the start of the final project, but always at the end of a study period. The assessor decides on admission to the final project meeting in conjunction with the study supervisor.

Present

The following individuals will be present at this defence of the final project:

- the study supervisor; the lecturer who supervised the student during the final project period
- the study assessor; the lecturer who assesses the work on the basis of the final project report and the oral explanation thereof and who chairs the final project meeting
- the company supervisor; the individual from the company who has supervised the student and who knows best how the student has performed and whether the objective of the final project has been achieved
- an external expert; someone from the business sector who attends a number of final project meetings of students. This individual has read the report and can assess the work, the report and the presentation from a more objective standpoint and in this way helps us to monitor the quality of the programme
- the graduating student; ensure you are well prepared and in particular that you are present to defend your final project on time.

You can invite other people, such as your careers adviser or family, in consultation with the work placement office.

Confidentiality statement

It can sometimes happen that a client will object to the provision of material produced in the project. In this case the programme department reserves the right to cancel the final project meeting. This is

because, as a degree programme department, we must be properly able to assess what a student has produced. We will of course act in all reasonableness in cases of this kind. Signing a non-disclosure agreement (see standard agreement on A-Z list student) is one of the options. Every external expert will be asked, before he/she undertakes the role, to sign a 'standard' non-disclosure agreement.

The final project meeting in brief

The final project meeting starts with your presentation (around 20 minutes), followed by the answering of questions (around 30 minutes) put by those present with reference to your presentation and final project report.

In the second part the learning aptitude, social orientation and professional ethics and collaboration are assessed. This part takes up no more than 15 minutes.

The assessment is the last part to take place, for which around 20 minutes are set aside. The student and the guests leave the room. The assessor determines the final assessment in consultation with the other individuals present.

Following the assessment, the student and others present are invited back for the feedback, and the assessment, with substantiation of the final mark, is reported.

Examples of final project meetings can be viewed as a web lecture. Go to [A-Z webcolleges](#) and log in top right of the page, go to Faculty of Digital Media and Creative Industries and search for 'final project meeting'.

The final project meeting is recorded on video for archive and accreditation purposes.

4.3. Assessment/grading

The graduation assignment evaluation form can be found in Appendix 2. The assessment of the graduation semester results in a mark. The competencies must all be assessed with a pass.

If the final project report is assessed by the study supervisor and assessor as a **fail**, there are two options:

1. The final project or other documentary evidence can be improved or supplemented.
In this case the student improves the report or provides additional evidence. In the case of improvement, carrying out the final project, the reporting and the final project meeting must be complete within nine months of a supervising lecturer being assigned. If the final project report and the evidence still fail following improvement, an extension can only be obtained with the prior consent of the graduation committee. The graduation committee determines the time frame within which the final project must be completed.
2. The final project report cannot be improved or there is insufficient evidence.
This is the case for example if the situation has changed such that the project can no longer

be completed at the final project company or is no longer relevant. In this case the student must acquire and carry out a new final project.

4.4. Test results, inspection and objection

Following the assessment, the student is informed thereof and the substantiation on the spot. The marks are entered in SIS within 15 days.

You can object to the mark by contacting the lecturer. You must do so within a period of 25 working days of publication of the mark. This option to change the mark lapses after this period and you must take part in the interim examination again (see Article 5.13(3) of the Teaching and Examination Regulations).