

On-the-Job Internship (Modul I) & Project Report and Final Examination (Modul J)

The HIM internship comprises the identification and conceptual or practical solution of a relevant problem in the student's own professional field. The solution shall apply information management methods and tools as discussed in the HIM modules.

Version from: 21.2.2019

Objectives

The objectives of the internship are defined in the HIM study regulations: Students are able to

- identify a practical problem of information management in the clinical setting;
- put the acquired techniques and approaches into practice;
- conceptualize a project based on a problem-solving approach and implement it;
- carry out the project on-time and on-target and are able to tackle emerging problems;
- deal in-depth with an information management subject;
- include specialist literature on the problem-solving process;
- communicate with other specialists and specialist groups during their internship;
- reflect critically on the acquired knowledge.

Time schedule

Students are advised to follow the following time schedule:

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|---------------------|--|
| February | <ul style="list-style-type: none"> • Study and Examination Board assigns supervisors for all students |
| Until end of March | <ul style="list-style-type: none"> • Student defines topic together with the assigned supervisor • Student writes project outline (1 page) • Student submits application form „Registration of the final project“¹ together with the project outline to the Study Management Office (lehre@umit.at), which will forward the application to the HIM Study and Examination Board that has to approve the topic |
| April – July | <ul style="list-style-type: none"> • Student works on the topic, under supervision of his/her supervisor • Student works on the project report |
| September | <ul style="list-style-type: none"> • Student submits project report to Examination Office (pruefungen@umit.at) (upon agreement of supervisor) • Student and supervisor agree on date&time of presentation • Supervisor informs Examination Office on date&time (at latest 7 days before the agreed date) • On announced day&time: Student presents project in front of Examination Board |

¹ Available at: https://www.umit.at/page.cfm?vpath=studien/studienmanagement/formulare--informationen&switchLocale=en_US

Note: Once the topic and the supervisor have been approved by the HIM Study and Examination Board, the student has six months to finish the internship and to give the final presentation. Upon student's request, the Study and Examination Board can grant a one-time extension of this deadline by a maximum of six months. This will extend the duration of the studies, and course fees for further semesters are due.

Topic definition

eHealth is not about products, but about solutions to problems.

In your project you are therefore asked

- to identify and describe a relevant healthcare-related problem,
- to describe the requirements for eHealth technologies that may help to address this problem,
- to develop a solution design based on Siemens Healthineers eHealth Solutions,
- to prepare the demonstration system of Siemens Healthineers eHealth Solutions to support relevant parts of your solution design, and finally
- to present and demonstrate your proposal to a customer in an understandable way.

You can choose a problem from your professional context or from the literature. Your solution design has to be based on eHealth Solutions as provided by Siemens Healthineers, but you may also add components that are not offered by Siemens Healthineers, but that you feel are needed to solve your problem.

The chosen topic and your solution design should allow you to show competencies acquired within HIM (Modules A – H). In particular, it is expected that you use adequate formal modelling techniques for specification and solution design.

Steps of your projects

Here are the steps you are expected to perform during your project:

1. Identify a **clinical problem** that you want to solve or ameliorate by eHealth technologies (such as home-monitoring of vital signs of heart failure patients; teleradiology between a university hospital and a remote clinic; or cooperative care scenario for patients with chronic illness, etc.)
2. Develop a **high-level requirement description** for this problem by describing the clinical problem, the use case(s) and the general organizational and technical requirements that need to be fulfilled by eHealth technologies to support this use case.
3. Develop a **high-level solution design**, describing both organizational and technical aspects that will fulfil the requirements and respond to the clinical problem.
4. Prepare a **simulated patient case** within the Siemens Healthineers eHealth Solutions demonstration system (access will be provided to you) that allows you to show how Siemens Healthineers eHealth technologies can be used to solve the problem.

5. Prepare a **10-minute understandable presentation for your customer** (level of audience: chief medical officer, chief nursing officer) explaining the problem and your solution. During the presentation, the simulated patient case has to be presented. The presentation should convince the customer that the problem is relevant and that your solution is feasible.
6. Prepare your **written project report** (details: see below).

Project report

The project report consists of a maximum 10-page document (with additional appendixes if needed) that describes clearly:

- Clinical problem and clinical relevance (about one page)
- Specification (about 3 pages)
- Solution design (about 4 pages)
- Reflection that highlights personal lessons learned from the project with regard to health information management (about 2 pages).

Make sure to write in a way that is concise and clear to your readers. Make sure to include meaningful models, figures and tables to highlight your major points.

The project report has to be submitted in electronic form (pdf) to the study management office (pruefungen@umit.at) 14 days before the oral project presentation.

Final examination

The final examination consists of an oral presentation. It takes place in front of an examination board, usually consisting of two examiners who are announced by the HIM Study and Examination Board. Experts from Siemens Healthineers may attend as guests and provide input into the quality of the presented solution.

The final examination can take place at UMIT or via WebEx. The examination can be done in English or German. It is open to all members of the university.

The final examination consists of

- A five minutes summary of your project (background & motivation, objectives, approach, results) and your lessons learned from the project and from the overall HIM course;
- A 10-minute presentation prepared for your customer;
- A discussion with the examination board on the presentation. In this discussion, the examination board can refer to content covered in all earlier HIM modules.

Overall, the final examination lasts up to 45 minutes.

Overall assessment

Project report and final examination (Module J) will be graded together. The supervisor first writes an assessment of the project report that also includes a suggestion of the grade. The overall grade then results from the grade given for the project report (two thirds) and the grade given by the examination board in the final examination (one third).

The on-the-job internship (Module I) is graded „successfully completed“ only if Module J was completed successfully.