Field Courses (MEX0015) – Internship Guide

For students of the Integrated Engineering (MVEB) study programme · Department of Mechanical and Industrial Engineering, TalTech

The internship process at a glance

1. Find a suitable placement – this is the student's own responsibility.
2. Agree the tasks and dates with the host company and sign the three-party internship contract (university – host company – student).
3. Submit the internship application in the Study Information System (ÕIS) for approval by the programme coordinator.
4. Complete the internship (at least 5 full weeks), keeping a daily internship diary.
5. Within 14 days of finishing, submit the final report (at least 10 pages) via ÕIS; the host company provides its assessment.
6. The academic supervisor grades the internship on the A–F scale.

1. Objectives of the internship

- **Consolidate knowledge.** Apply and deepen the competences acquired in previous engineering and IT courses.
- **Gain hands-on engineering experience.** Become familiar with a company's production, IT development, processes and management models while solving real engineering and/or software-technical tasks.
- **Identify a thesis topic.** Prefer a company or position where a potential research or development problem for the final thesis may emerge.

2. Scope, duration and timing

Parameter	Requirement
ECTS credits	**6 ECTS** (≈ 156 hours; 1 ECTS = 26 h at TalTech)
Duration	**At least 5 full weeks** (or an equivalent part-time schedule)
Semester	Autumn or spring; the exact period is agreed between the student and the host company

3. Choosing the internship placement

- **Student's responsibility.** The student finds and negotiates the placement.
- **Relevance to the field.** The host may operate in the engineering or IT sector, or in another area, provided the position clearly requires engineering and/or IT competences (e.g. digitisation of a manufacturing plant, maintenance of a robotics system, software development for production-data analysis).
- **Thesis potential.** Prefer a placement where a concrete research or development assignment suitable for the final thesis is likely to arise.

> **Programme-specific provision – Integrated Engineering (MVEB14).**
> Because the Integrated Engineering curriculum combines mechanical, mechatronic and IT competences, students on this programme may also complete the internship in an IT-sector company, as long as the tasks require engineering and/or IT competences. Students of other

> programmes that share MEX0015 (e.g. Product Development and Robotics, EARB16) should confirm the eligibility of an IT-sector placement with their own programme coordinator.

Approval is granted by the programme's internship coordinator once the internship application has been submitted via ÕIS.

4. Content and tasks of the internship

The internship must include diverse engineering and/or IT tasks. The examples below are non-exhaustive.

Engineering-focused examples

- Analysis and optimisation of technological processes
- Layout design or workflow planning for a production line
- CAD/CAM modelling or prototyping
- Application of quality-management methods (Six Sigma, SPC, FMEA)
- Assessment of occupational safety and ergonomics

IT-focused examples (may be combined with engineering)

- Collection and analysis of industrial data (IoT, SCADA, MES)
- Software development (e.g. Python, C#, Java) for production or process control
- Database management and integration of cloud solutions
- Implementation of RPA or artificial intelligence in production / service processes
- Cyber- and information-security auditing in an industrial environment

5. Supervision and roles

Role	Responsibility
Company supervisor	Day-to-day coordination and guidance at the host company
Academic supervisor (TalTech)	Consultations, as needed, on the internship plan, the report and the learning outcomes; final grading
Student	Keeping the internship diary; meeting the objectives; preparing the final report

6. Documentation

Document	Format / length	Deadline
Internship diary	Daily entries (date, activity, outcome, reflection)	Continually during the internship
Final report	**At least 10 pages** (recommended 10–15 pp); structure: see Appendix A	No later than 14 days after the end of the internship; submitted via ÕIS

7. Assessment

The internship is graded on TalTech's differentiated scale **A–F** (A = 5 excellent, B = 4 very good, C = 3 good, D = 2 satisfactory, E = 1 sufficient, F = 0 fail). Assessment is based primarily on the written final report and takes into account the host company's assessment.

The report must clearly demonstrate the achievement of the learning outcomes and include supporting evidence (figures, code snippets, photos, etc.). The academic supervisor may request additional clarifications.

8. Learning outcomes and evidence

Learning outcome (per the syllabus)	How it is demonstrated
Ability to navigate an engineering / IT organisation	Internship diary + descriptive sections of the report
Ability to apply practical work experience	Project or development task described in the report
Solving company-specific problems	Case study or improvement proposal
Ability to document and describe work phases	Report structure + appendices

9. Conduct and safety rules

- Follow the company's occupational-safety instructions and wear the required personal protective equipment.
- Confidential information (business data, production details, source code, etc.) may be included in the report **only with the company's permission**.
- TalTech's principles of academic ethics apply throughout the internship.

10. Grants and insurance

- **TalTech does not provide liability insurance.** The student is responsible for arranging any necessary insurance cover (e.g. health or liability) for the internship period.
- Erasmus+ or TalTech internship grants may be applied for in the case of an international placement (see the guidelines of the International Studies Office).

11. Contacts

- **Academic supervisor / programme lead:** Prof. Tauno Otto (tauno.otto@taltech.ee)
- **Coordinating unit:** Department of Mechanical and Industrial Engineering, TalTech

Appendix A. Sample internship-diary form

Date	Task	Tools / methods	Outcome	Reflection
09.09	Workflow analysis of a CNC line	SPC data, Python	Identified 2 bottlenecks	Optimise tool-holder logistics

This guide ensures that the student meets all learning outcomes, gains genuine engineering and/or IT work experience, and submits a properly formatted final report of at least 10 pages. TalTech evaluates the internship on the basis of the written report submitted via the Study Information System (ÕIS).