

Guidelines for the internship period of the AP Degree Programme in Chemical and Biotechnical Science - Laborant AK.

Frames

After the Programme's third semester the student must start an internship.

The internship takes place in a company cf. order no. 976 of 19/10-2009.

The internship constitutes 50 ECTS-points

The internship is carried out as a paid employment in one or several companies.

Internship in a company means that the student works with the company's functions and hereby meets learning objectives. When organising the internship period, the student's qualifications and prior knowledge should be taken into account. The teaching is primarily carried out by instruction and by integrating learning objectives in the work. The student assists in the company's functions with safety, work environment and quality control.

By "the company" should be understood either the whole company or a part of a company or a public institution.

Responsibility

Institute of higher education

The institute of higher education must ensure progression throughout the whole programme of study.

During the internship period, the institute will have contact to both the student and the company.

The dialogue can include:

- advice on determining the time schedule and elaboration of educational documents.
- advice on learning objectives.
- agreement on the possible extension of the programme due to illness, maternity leave or other leave.

Company

The company appoints a person who is responsible for the student's education and the contact with the institute. The appointed person must be competent within the educational elements and must act as sparring partner in the reflections as the student must go through when he or she verbalizes, how the learning objectives are met – in the internship report. This might take place on regularly scheduled talks.

Scope

The internship period has a scope of 50 ECTS-points, equivalent to 5/6 years of study.

For absence due to pregnancy, maternity or other leave, the education time is extended corresponding to the period of absence.

Internship in the company

Educational element	ECTS-points
Organisation and culture of the workplace	5
Safety/work environment	5
Quality systems	5
Laboratory technical methods	35

Learning objectives

1. Organisation and culture of the workplace

Knowledge

The student has:

- knowledge of the company's core areas and mission
- knowledge of the company's organisation
- knowledge of the laboratory's communication and decision processes
- knowledge of workplace procedures for purchasing and ordering internal services

Skills

The student can:

- adapt to the norms, behaviours and values of the workplace.

Competences

The student can:

- collaborate and communicate with the various groups associated with the laboratory

2. Safety/work environment

Knowledge

The student has:

- knowledge of the company's safety organisation
- knowledge of the use and preparation of workplace manuals
- knowledge of workplace assessment
- knowledge of procedures for handling waste

Skills

The student can:

- make a choice of personal protective equipment

Competences

The student can:

- plan and carry out laboratory work that is safe and environmentally sound
- participate in the preparation of workplace manuals and workplace assessments

3. Quality systems

Knowledge

The student has:

- knowledge of the company's quality assurance procedures, including procedures that ensure reliable results and procedures for documentation

Skills

The student can:

- demonstrate his/her own work according to quality assurance procedures, including registration and filing under the requirements

Competences

The student can:

- assist in the maintenance/expansion of the company's quality assurance procedure
- assist in the company's validation of equipment and methods

4. Laboratory technical methods

Knowledge

The student has:

- knowledge of the main methods that are used in the workplace; including the principle and application of the methods

Skills

The student can:

- use a wide range of workplace analyses and methods

Competences

The student can:

- plan, conduct and evaluate his/her own work

Educational Plan

At the beginning of the internship period the company and the student jointly elaborate an educational plan that ensures internship objectives to be reached. The institute may be involved as a consultant while preparing the plan if needed.

During the first week the company forwards the plan on approval to the institute. If problems occur regarding the approval, the plan is revised after advice from the institute. The plan must be finally approved within the first 4 weeks of the internship period.

Evaluation

The student's learning outcome from the internship are evaluated through a written report where the student briefly describes how the learning objectives of the internship period are reached.

The expected scope of the report is approx. 5-10 pages.

The evaluation is a test with internal evaluation and will be graded using the 7-point grading scale.

Requirements to the internship report

The report is to describe how the individual educational objectives under the various educational elements have been reached.

The report must cover the full internship period and the hand in date depends on the date for the students final project examination – according to the following list :

Start of internship	Examination for the final project	Latest hand in date of the internship report
3/12 - 16/3	Week 3-4	Wednesday in week 44
17/3 - 2/6	Week 15-16	Wednesday in week 5
3/6 - 2/9	Week 25-26	Wednesday in week 15
3/9 - 2/12	Week 40-41	Wednesday in week 25

Within a period of 2 weeks after the hand in of the report an evaluation will take place.

Proposals for selected subjects and sub-subjects below can be used as inspiration for the description in the report.

Other subjects or sub-subjects may be more relevant – depending on the organisation, production and working methods of the company.

1. Organisation and culture of the workplace (5 ECTS):

- Account for the products of the workplace (medicine, analyses, candidates, services)
- Describe the organisation of the workplace (who makes the decisions about which subjects and how is it done?)
- Describe how decisions and relevant information are communicated to the workplace
- Describe purchasing procedures (Who orders chemicals, equipment, etc.? How are products and suppliers selected? How are assistance/products from other departments ordered?)
- Give examples of how you have adapted to the culture of the workplace
- Describe who you have collaborated with and in what way.

2. Safety/work environment (5 ECTS):

- Account for the safety group you belong to as well as this group's placement in the company's entire safety organisation (who is member of the safety group and what are the group's tasks?)
- Describe how instructions for use (MSDS's) are prepared and used.
- Describe how your company uses workplace assessments (APV's).
- Give examples of 3 different types of laboratory waste and their disposal.
- Give examples of when and why you have used personal protective equipment and/or worked in special laboratories.

3. Quality systems (5 ECTS):

- Give examples of 2 different procedures used where the workplace ensures that obtained data are reliable.
- Describe examples of how results are registered/journalised.
- If the workplace has an overall quality system, state its name and what the overall purpose of the system is.

4. Laboratory technical methods (35 ECTS):

- State principle and use for minimum 3 different methods which you have applied.

Educational documents

The institute provides educational documents that should be used as documentation for the student's education. All educational documents are also electronically available.

The documents consist of:

- A. Educational Plan
- B. Weekly journal

Ad A) Information on the contracting parties of the internship period – student, company and institute. The 3 top boxes of the form are filled in by the company and sent to the institute at the latest one week after the beginning of the internship period. The institute fills in the bottom section and returns a copy to the company and the student.

Ad B) At the beginning of the internship period the company and the student must jointly prepare an educational plan. It should describe the tasks that the student will be assigned to according to learning objectives. For laboratory technical methods a thorough explanation must be given.

The educational plan is written in a pre-printed form. It is the institute's task to oversee that the plan is combined so that the internship has the required combination regarding subjects and their temporal distribution.

The institute may be involved as a consultant when preparing the plan.

The educational plan must set aside time for the student to understand the principles and theoretical background for all the educational elements used during the internship period, and time for preparation of the report for the internship test. The institute must approve the educational plan within the first 4 weeks of the internship period and return a copy of the approved plan to the company and the student.

Ad C) The student must keep a weekly journal over the internship period, which should specify the tasks, analyses etc. that have been conducted in each week, and which subjects that have been worked on. Examples of weekly journals may be provided by the institute.

The weekly journal must be available when the student counsellor visits the company. The weekly journal must be sent to the institute together with, or as a part of, the written report for the internship period.

Ad D) In order to continuously improve the Academy Profession Degree, Programme in Chemical and Biotechnical Science and the related internship we ask the company and the student to please fill in an evaluation form at the end of the internship period.

The evaluation should be sent to the institute and will remain confidential between the company, respectively the student and the institute. However, the assessment will be included in a statistic over the programme.

The original document A will be kept by the institute.

C Weekly journal

The student must keep a weekly journal over the internship period, which should specify the tasks, analyses etc. that have been conducted in each week, and which subjects that have been worked on.

Subjects	
A	Workplace organisation
S	Safety/Work environment
K	Quality Assurance
L	Laboratory technical methods

The weekly journal must be available when the student counsellor visits the company. The weekly journal must be sent to the institute together with or as a part of the written report for the internship period.

Name of the student

Week	Description of tasks	Subject

Date and Signature
Student

Date and Signature
Company's Programme
responsible