

UNIVERSITY OF SZEGED FACULTY OF AGRICULTURE



ENGINEERING INTERNSHIP AGRICULTURAL ENGINEERING BSC

VALID FROM 2021/2022 AUTUMN SEMESTER

Hódmezővásárhely
2021

Guide to Engineering Internship

For students of the Agricultural Engineering BSc

The purpose of the Engineering Internship

Students must practice those professional tasks and activities at the internship place for which they prepared during their studies. They are able to apply the elements of this profession as a skill and experience the method of the management of professional groups. They become familiar with applying management techniques.

Criterion of starting the Engineering Internship

The criterion of starting the internship is fulfilling the curriculum requirements apart from the courses related to the Degree Thesis.

Schedule of the Engineering Internship

The internship starts at summertime.

- **For full – time students: 14 weeks (560 hours),**
which is divided into two 6 + 1 week period, i.e. 6 weeks of practice followed by 1 week of consultation week in which students report on the work done on the practice.

How to apply for an Engineering Internship

Students may complete their internship at a Hungarian company with which the Faculty has a valid cooperation agreement. If students would complete their internship at a Hungarian company with which the Faculty has not yet concluded such a cooperation agreement, they must inform the instructor organizing the internship.

The person entrusted with the organization and professional management of the student's professional activities at the internship must have at least a college or BSc degree.

Students with foreign citizenship and foreign residence may fulfill their internship at a foreign agricultural company if an epidemic emergency or epidemiological preparedness is in force in Hungary 1 month before the start of the internship and is expected to be in force during the internship. In this case, students must submit a Dean's request in the Modulo system no earlier than the end of the term time prior to the commencement of the internship.

Upon application, students must submit the Declaration of Acceptance in 1 copy, signed and stamped, and in case of a new agreement, the Cooperation Agreement signed and stamped in 2 copies.

Students must apply and submit the necessary appendices only personally to the instructor who organizes the internship.

Students must perform work on the basis of a student employment contract concluded with a professional internship place. A copy of the student employment contract can be downloaded from the Faculty website, it does not need to be submitted to the instructor organizing the internship.

Evaluation of the Engineering Internship

Students' engineering internship ends with a term mark, which is the following: excellent (5), good (4), satisfactory (3), pass (2) and fail (1).

If the grade is "1", students must repeat the semester.

Aspects of the evaluation:

- evaluation of the student by the internship place training coordinator,
- evaluation of the internship diary,
- evaluation of the essay and the professional report.

The term mark consists of the average of these three aspects above.

The minimum criterion of fulfilling the practice is to reach the pass level from all the three aspects.

Fulfilling the practice makes out 30 credits.

Duties of students

Students do their activity according to the character and the fields of activity of the internship place.

The management of the internship place specifies students' work place, daily work and the duties.

It's students' duty:

- to study the environmental, geographical relations of the internship place, and also to acquire and practice the part tasks.
- to know the applied registration, identification and informatics systems.
- to be able to analyze the indicators of production, breeding and husbandry results.
- to know the input-output source system of the factory. Students have to make the SWOT analysis of the activity. Describe the breeding and producing program of the activity, the aims and the results of the program.
- to know the technological system of the internship place, assess the genotype x environment interactions.
- to assess the human resources and to rethink the developmental possibilities.
- to get acquainted with organizing practical work, work safety and how to form the duty list (biological, human and legal background). Make human politic and sociological research in the examined field. Students must use the informatics and communication systems.
- to know the system of the applied outer services (efficiency examination, production controlling, writing applications, etc.), and assess the opportunities of the sector's development as well as the factual plans for the future.

During the internship, students are required to write a **diary** about their professional activities, and to write an **essay** about the achievements and experiences, which are the basis of an oral report as well.

Writing the diary and the validation and evaluation of the practice

The diary must be written with handwriting into a booklet (min. size: A/5) or edited by computer, printed, covered and comb bound. It should describe the place(s) of the work and the fulfillment of the professional duties on a daily basis.

In the diary, students have to characterize the working processes while describing the work, including the experience, suggestions and personal opinion about the work. They must introduce in details the technological elements connecting to the work.

Students must have their work admitted and evaluated with the professional leader.

Report about the knowledge and experiences acquired during the internship

The reports will take place after the six-week periods. Students are required to report for 15-20 minutes at the end of the consultation period based on the essay and the diary.

In the essay – without the misappropriation of trade/official secrets – students have to analyze the activity of the given institute according to the professional aspects of the area given (Appendix 1.).

Requirements of essay writing

- The essay should be 10-12 typed pages. According to the criteria regarding to the internship places (Appendix 1.).
- **Formal requirements:**
 - Times New Roman, 12 points character height, simple line space, justified, margins 2.5 cm.
 - Charts, diagrams and pictures have to be published in the appendix.
 - The cover page has to contain the students' name, course, the accurate place and time of the internship and the internship leader's name and status.
 - Literature and internet sources have to be cited in the „reference list” by marking the precise reference.
- The last page of the essay has to contain the copy of the declaration of the internship place about the fulfillment and the evaluation of the practice (Appendix 2.).
- The essay must be submitted in one printed and comb bound copy at the report to the committee and uploaded in Coospace. The name of the document shall be the following: e.g.:Brown_Steven.doc or pdf (your_name.doc/pdf).
- Those essays in which the content or the structure is improper, will fail.

Additional conditions and requirements for Engineering Internship not specified in the guide shall be laid down in a separate agreement between the organization providing the internship and the higher education institution organizing the internship.

ANIMAL HUSBANDRY PRACTICE

professional requirements and criteria of essay writing

1. The circumstances of the establishment of the company.
2. Organizational structure of the company, organizational chart (organogram).
3. Human resource characteristics of the company.
4. The booking value of the founding capital, fixed assets, current assets etc.
5. Past involvement of liabilities (loan) as well as their future necessity and possibility, way of financing.
6. Analysis of production activity of the company, introduction of the products.
7. The general characterization of the branch:
 - description of the farm,
 - buildings, stables and their technologies, supplementary institutes,
 - size of the region,
 - breeds, utilization types etc.,
 - localization of the branch within the farm,
 - external partnerships.
8. Number details:
 - distribution of animal stock according to sex, age and production groups.
9. Describing the technology
 - keeping,
 - feeding,
 - breeding, reproduction,
 - animal health,
 - caring duties.
10. Describing production details:
 - register of the farm,
 - natural indicators: body development, reproduction, production etc.,
 - mortality index.
11. Work management:
 - organizational structure of the farm,
 - personal conditions: manpower, education, work field,
 - organizing working time, organizing rest days and shifts,
 - work organization solutions in animal husbandry.
12. Economical analysis: yields, revenue, costs, unit cost, profitability, efficiency indices, cash- flow plan.
13. Marketing directions of the products, opportunities, conditions.
14. Development goals, objectives and plans of the company, management problems and resolving possibilities.
15. Use of subsidy, its administration.
16. Introduction of extension services, advocacy and their impact on farming profitability.
17. Developmental aims and plans.

PLANT PRODUCTION AND HORTICULTURE PRACTICE

professional requirements of the practice and criteria of essay writing

1. The circumstances of the establishment of the company.
2. Organizational structure of the company, organizational chart (organogram).
3. In case of research institute practice:
 - the general description of the research institute/station,
 - comprehensive description of existent R & D activity running at the institute or station,
 - a detailed description of the research program(s) known, depending on the information available (e.g.: name of grant program, grant amount, work plan, results achieved so far, publications).
4. Human resource characteristics of the company.
5. The booking value of the founding capital, fixed assets, current assets etc.
6. Past involvement of liabilities (loan) as well as their future necessity and possibility, way of financing.
7. The general description of the plant production unit, farm or company.
8. Ecological conditions, knowledge of the conditions of production:
 - climatic condition,
 - production area,
 - soil properties (soil analysis data),
 - properties of the growing media used in greenhouse cultivation.
9. Analysis of production activity of the company, introduction of the products.
10. Greenhouse types (according to the covering materials, structure and growing seasons).
11. Description of production profile (forage crops, crops for sale, horticulture etc.).
12. Detailed description of cultivated varieties, biological bases.
13. Detailed description of cultivated varieties:
 - soil cultivation,
 - preparation of greenhouses for plant production (irrigation, plant supporting system, soil covering etc.),
 - nutrient supply (kind of fertilizer, dosage, timing),
 - parameters of sowing, planting (sowing time, row distance, plant spacing, sowing depth, seed rate etc.),
 - plant care (mechanical works, irrigation, incision etc.),
 - plant protection (weed control, protection against diseases and pests),
 - harvesting, storage,
 - greenhouse culture cultivation technology.
14. In case of sowing seed production, processing and variety maintenance:
 - field works, field inspection (selection, detasseling),
 - procedure of seed processing,
 - sampling, seed certification,
 - seed testing in laboratory.
15. Machinery park (tractors, implements, machinery of irrigation).

16. Introduction of experiments.
17. Work management:
 - organizational structure of the farm,
 - personal conditions: manpower, education, work field,
 - organizing working time, organizing rest days and shifts,
 - work organization solutions.
18. Economical analysis: yields, revenue, costs, unit cost, profitability, efficiency indices, cash- flow plan.
19. Marketing directions of the products, opportunities, conditions.
20. Development goals, objectives and plans of the company, management problems and resolving possibilities.
21. Use of subsidy, its administration.
22. Introduction of extension services, advocacy and their impact on farming profitability.
23. Developmental aims and plans.

The Internship Leader's declaration about the completion of the Engineering Internship

The undersigned..... (*name*) certify that
..... (*name*) student
of Faculty of Agriculture, University of Szeged spent her / his Engineering Internship
fromuntil(*date*) at the
.....
.....
(*name and headquarters of the company/firm*).

I confirm that he/she accomplished their professional duties, wrote a daily diary about the tasks which corresponds to reality.

I grade his/her professional activity to be:

- excellent (5)
- good (4)
- satisfactory (3)
- pass (2)
- fail (1)

(Please, underline!)

My professional opinion about the student's activities:

.....
.....
.....

Date:.....

.....

signature, stamp