

# Attachment 3: Guidelines for the Practical Training of Students of the Bachelor Degree Program Business Administration and Engineering at RWTH Aachen University

Published by the Examination Board of the Bachelor Degree Program Business Administration and Engineering in consultation with the Internship Office of the Faculty of Mechanical Engineering as well as the mentors of the Degree Program Business Administration of the Faculty of Business and Economics at RWTH Aachen University

## 1. Goal of the practical training

For verification of the chosen study degree program, for a sufficient understanding of technical and economic lectures and tutorials as well as a preparation for future work, practical trainings in companies (internships) which offer an insight into future occupation fields are essential. The practical training of students of the bachelor degree program business administration and engineering at RWTH Aachen University is one of the substantial preconditions for a successful course of study and it forms an important part of the education. The students should obtain knowledge about technical materials and processes used in practice as well as economic considerations and procedures applied for their selection and control and gain insights into social processes and structures in the companies.

## 2. Duration, structure and schedule of the practical training

The practical training for business administration and engineering students (field of mechanical engineering) lasts at least 20 weeks. It is divided into pre-study internship which has to be performed prior to the start of studies according to Sect. 3, Para. 1, Subpara. 2 BPO (Bachelor Examination Regulations), and the internship which must be performed after the start of studies regulated in Sect. 19 BPO (Bachelor Examination Regulations). The practical training has to be fully completed and accredited according to subpara. 9 until registration of the bachelor's thesis.

### a. Pre-study internship (prior to start of studies)

At the time of enrollment 6 weeks of internship, thereof at least 4 coherent weeks in a company (pre-study internship), have to be proved according to sect. 3, Para. 1, Subpara. 2 BPO (Bachelor Examination Regulations) in the field of Mechanical Engineering; future students who can prove that they cannot carry out the 6 respectively 4 weeks of internship required before enrollment because of their military or community service may be admitted to the university without the pre-study internship. In the field of Electrical Engineering no pre-study internship is necessary. For proof of the pre-study internship the presentation of the internship confirmation is sufficient according to sect. 3, Para. 1, Subpara. 2 BPO (Bachelor Examination Regulation); reports on the practical training are not necessary. Accreditation of the pre-study internship is not connected to the enrollment. The verification of carrying out the internship according to the guidelines as well as the possible accreditation from this takes place after the start of studies. For this, full documentation of the

internship (internship confirmation and reports) must be submitted to the internship office by the end of the first semester without any specific reminder from the internship office.

b. Internship (during the studies)

The minimum duration and the recommended schedule for the internship that has to be performed in the field mechanical engineering are 14 weeks and the 7<sup>th</sup> semester. The coherent training in a company in this field should at least be 4 weeks.

### 3. Content of the practical training (plan of instruction)

The practical training consists of a technical and an economic part. The contents of the technical part are regulated specifically to the field of study, the contents of the economic part are the same for all fields of study.

The duration of the technical part in the field of mechanical engineering is at least 10 weeks. The duration of the economic part in the field of mechanical engineering is at least 8 weeks.

a. Technical part of the practical training

At least 4 weeks of the technical part of the practical training in the field of mechanical engineering are to be performed in the area of the technical basic internship. From the area of the technical basic internship all activities from GP1 to GP3 must be covered in the stated minimum number of weeks. An accreditation of more than the stated maximum number of weeks is not possible.

	Type of training	Minimum Duration	Maximum Duration
<b>GP1</b>	Cutting processes	<b>2 weeks</b>	<b>3 weeks</b>
<b>GP2</b>	Forming processes	<b>1 week</b>	<b>2 weeks</b>
<b>GP3</b>	Thermal joining and cutting processes	<b>1 week</b>	<b>2 weeks</b>

**GP1:** Cutting processes:

e.g. filing, chiseling, sawing, drilling, countersinking, galling, manual tapping, lathe turning, planing, milling, sanding, lapping, broaching, honing.

**GP2:** Forming processes:

e.g. hammer and die forging, extrusion, beating out, kneading, upsetting, coining, drawing, rolling, stretch forming, cupping, metal spinning, stamping, fine-edge blanking, bending, leveling, riveting.

**GP3:** Thermal joining and cutting processes:

e.g. gas welding, arc welding, resistance welding, flame cutting, plasma brazing, resistance brazing, vacuum brazing, induction brazing.

It is recommended to perform the technical basic internship during the pre-study internship prior to the start of studies.

#### b. Economic part of the practical training

In the economic part of the practical training at least two different fields have to be completed for at least two weeks each. Typical economic areas are particularly accounting and finances (including taxes), sales department (including marketing), purchasing and procurement, production planning and production controlling, materials management and logistics, human resources management, planning and organization as well as controlling and audit. It is strongly recommended to perform the economic part of the practical training – if possible – within the framework of the internship during the studies.

### **4. Application for (pre-study) internships, internship companies**

Students have to look for a suitable internship themselves. Before the search, they should become acquainted with the regulations governing the internship, the report etc. on the basis of the guidelines or in special cases directly with the responsible internship office or the study counselor for the bachelor degree program business administration and engineering.

Domestically, only companies certified for training purposes by the Chamber of Industry and Commerce can be considered for the pre-study internship and the internship. The responsible Employment Office and the local Chamber of Industry and Commerce inform about suitable recognized companies for trainees.

Internships at university institutes or self-owned or parental companies cannot be approved. The technical basic internship may not be performed at companies in the craft trades sector, which generally specialize in maintenance and repair work, with no independent production.

The responsible professional associations may assist in finding an internship. Their addresses can be received from the internship office as well as from the counselor responsible for internships at the Faculty of Business and Economics.

### **5. Supervision of trainees**

In the companies, the trainees are usually under the care of a training supervisor, who provides for appropriate training in line with company capabilities and the internship regulations. He or she is the contact person for the trainees on technical matters.

University trainees are not required to attend vocational colleges.

### **6. Report on practical training**

The trainees have to compile a report about their activities during their internship.

The report, which should describe the performed activities in a single coherent text (no daily reports), should document the experience gained in the work process (performed activities, work routines, employment of machines and methods, organizational regulations, impact of machines on humans and the environment, problems which occurred). A short description of the internship company must be included (line of business, size, products). Either reporting notebooks or stapled DIN A4 sheets are to be used for the reports.

Attention must be paid to not publishing company secrecy and sensitive data. Calculation examples must in these cases be conducted with fictitious data and they must be marked as fictitious.

The report should be about 2 DIN A4 pages per week in length (sketches and text). The reports should be typewritten. Work sheets and copies (e.g. of regulations, literature etc.) are not acceptable substitutes for self-written reports. All reports must be stamped and signed by the instructor.

## **7. Internship confirmation**

On completion of the internship, the trainee receives a confirmation from the company stating the length of the training in various work areas and any days of absence from the company due to sickness or vacation. The internship confirmation must be issued by the internship company. Confirmations from employment agencies cannot be accepted. Sample internship confirmations for the technical part are available at the internship office, for the economic part from the counselor responsible for internships at the Faculty of Business and Economics or on the websites of the respective faculties.

## **8. Presentation**

Students of the field mechanical engineering report on their practical training in form of an oral presentation at the chair or teaching and research area of their tutor. All professors of the respective engineering faculties and the Faculty of Business and Economics are tutors. The tutor will be assigned by the responsible internship office in agreement with the Faculty of Business and Economics. The type and duration of the oral presentation are to be discussed with the tutor. After the presentation and the ensuing discussion the tutor issues a confirmation, which must be presented at the internship office together with all accredited internship confirmations in order to receive accreditation of the practical training.

## **9. Accreditation of the practical training, credit points**

Accreditation of the technical part of the practical training and the overall internship certificate is carried out by the internship office; accreditation of the economic part of the practical training is carried out by the counselor responsible for internships at the Faculty of Business and Economics. For accreditation of the internship, presentation of the report according to subpara. 6 (including daily reports of performed activities during the technical part in the field of electrical engineering) and the internship

confirmation according to subpara. 6 in the original is obligatory; furthermore, the presentation confirmation issued by the tutor must be presented. Type and duration of the training in the different work areas must be apparent at all times from the documents.

The internship documents are to be presented to the internship office for approval at the latest 6 months after completion of the internship. The documents concerning the economic part of the practical training will be forwarded to the counselor responsible for internships at the Faculty of Business and Economics. Newly enrolled students can submit the documents up to the end of the first semester at the latest. If documents are handed in late, it may lead to the non-recognition of the internship due to a lack of verifiability.

The internship office decides for the technical part, the counselor responsible for internships at the Faculty of Business and Economics for the economic part, in how far the practical training meets with the regulations and whether it can be accredited as an internship. It, respectively he or she, confirms the approved duration of the internship on the confirmation issued by the internship company submitted with the report. The internship office will not notify students of the outcome of the accreditation process.

The overall certificate is issued only if the internship has been fully completed. For accredited internships which comply with subpara. 2 and 3, 15 credit points will be awarded according to Sect. 19, Para. 2 BPO (Bachelor Examination Regulations).

Objections against negative decisions of the internship office in regard to the accreditation of the duration of internships, respectively the counselor responsible for internships at the Faculty of Business and Economics or the tutor regarding the presentation according to subpara. 8, may be raised at the Examination Board of the Bachelor Degree Program Business Administration and Engineering within a deadline of three months after presentation of the documents in question, respectively after the decision of the tutor. The Examination Board of the Bachelor Degree Program Business Administration and Engineering will communicate its decision in written form and add an advice on applicable legal remedies.

## **10. Accreditation of previous practical activities**

Approval of any previous practical activities, for example completed professional training, periods of professional work etc. will be given so long as the areas of work specified in subpara. 3 have been covered during the training.

## **11. Practical training abroad**

It is recommended that students also perform their internships in abroad. For accreditation of such internships the above regulations are binding. To prevent problems of accreditation, it is suggested to coordinate the technical part of the internship abroad with the internship office, the economic part with counselor responsible for internships at the Faculty of Business and Economics. At least half of

the internship in the field of mechanical engineering should be performed at companies in German-speaking countries.

The report and internship confirmation must be in German or English. The internship confirmation may also be an officially attested translation into German or English, as long as the original in the corresponding national language is also presented.

The International Office has further information on internships abroad and on possible financial support from the German Academic Exchange Service (DAAD). These guidelines apply without exception to all future students living in foreign countries and intending to study at RWTH Aachen University.

## **12. Internship contract**

The trainee relationship becomes legally binding through an internship contract, based on a sample contract approved by the responsible positions, agreed and signed by the trainee and the company. All the rights and duties of the trainee and the company should be stated in the contract.

## **13. Vacation, sickness, days of absence**

Trainees usually receive payment from the internship company with an amount at the company's discretion. They are not entitled to take holidays. Days of absence due to sickness must invariably be made up for.

## **14. Compulsory insurance**

Information concerning the compulsory insurance may be obtained from the respective health insurance company. Insurance for internships abroad is guaranteed in form of a special training insurance taken out by the trainee respectively the company.

## **Addresses**

RWTH Aachen University  
Internship Office of the Faculty of Mechanical Engineering  
Eilfschornsteinstr. 18, 52056 Aachen  
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**Please note: Only the German version of these guidelines (“Richtlinien für die berufspraktische Tätigkeit der Studierenden des Bachelorstudienganges Wirtschaftsingenieurwesen an der RWTH Aachen”) is legally binding.**