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Internship Regulation

**for the Bachelor degree course in
BUSINESS ADMINISTRATION AND ENGINEERING
with specialisations in
MECHANICAL ENGINEERING AND MANAGEMENT
(MASCHINENBAU UND WIRTSCHAFT)
POWER AND MANAGEMENT
(ENERGIE UND WIRTSCHAFT)**

**and for the Master degree course in
BUSINESS MANAGEMENT AND ENGINEERING
with specialisations in
MECHANICAL ENGINEERING AND MANAGEMENT
(MASCHINENBAU UND WIRTSCHAFT)
POWER AND MANAGEMENT
(ENERGIE UND WIRTSCHAFT)**

**at the Duisburg-Essen University
dated 2 July 2004**

Based on §2 section 4 and §94 section 1 of the Higher Education Act (Hochschulgesetz - HG) of the Land of North-Rhine/Westphalia dated 14 March 2000 (NRW Gazette of Laws and Ordinances p. 190), last amendment per law dated 16 December 2003 (NRW Gazette of Laws and Ordinances p. 772), the Faculty 3 – Faculty of Economics and the Faculty 5 – Faculty of Engineering of the Duisburg-Essen University have adopted the following Internship Regulation:

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I. General provisions

§ 1

Area of application

This Internship Regulation is based on the valid examination regulations for

the Bachelor degree course in BUSINESS ADMINISTRATION AND ENGINEERING with specialisations in MECHANICAL ENGINEERING AND MANAGEMENT and POWER AND MANAGEMENT (Examination Regulation dated 11 March 2004, published in the Bulletin of the Duisburg-Essen University p. 61) and

the Master degree course in BUSINESS ADMINISTRATION AND ENGINEERING with specialisations in MECHANICAL ENGINEERING AND MANAGEMENT and POWER AND MANAGEMENT (Examination Regulation dated 11 March 2004, published in the Bulletin of the Duisburg-Essen University p. 95).

It contains the rules for the practical training (internship) of the students enrolled on the a.m. degree courses at the Duisburg-Essen University.

§ 2

Purpose of the internship

(1) The practical training (internship) at industrial companies helps the students to understand the lectures better and to participate actively in the exercises offered within the academic programme of Business Administration and Engineering. As a prerequisite for the successful completion of the studies, with effects for the student's future career prospects, it is an integral part of the degree programme. Already in the run-up to his or her university studies, the future student is supposed to get acquainted with basic practical methods and processes. However, the teaching of manual skills is only of secondary importance during the internship, making it essentially different from an apprenticeship. In the first place, the intern student shall gain insight into operational processes, organisational and corporate social structures.

(2) In the later course of the academic studies, the internship shall complement and deepen the theoretical knowledge by highlighting its practical relevance. The internship gives the student the opportunity to get to know some sectors of an industrial company and to put into practice his or her knowledge acquired at university. Another crucial aspect is to become aware of the sociological side of the corporate working world. The intern student shall also learn to understand the company as a social structure and experience the relationship between managers and staff to be fully able to comprehend his or her own future position and career prospects. Already during the first few weeks of the internship the practical aspects of the internship become effective, because the intern student will be able to realise whether he or she is sufficiently motivated for a technical career. This is even more important in the further course of the internship, when the student gets a major insight and is enabled to make a career choice based on his or her practical experience.

§ 3

Scope and duration

(1) The Faculty of Economics and the Faculty of Engineering require students within the programme of Business Administration and Engineering to complete an industrial practical training (internship) of an overall duration of 12 weeks for the Bachelor degree course and of an additional 8 weeks for the Master degree course.

(2) The internship shall cover commercial and technical issues. In the Bachelor degree course in Business Administration and Engineering the commercial and technical issues must be covered by 4-week internship each, while the remaining 4 weeks can be assigned to any of the two areas. In the Master degree course in Business Administration and Engineering the student is free to choose any of the areas of practical work mentioned in the annex.

(3) The practical training can consist of several separate internships which may not be shorter than two weeks each. It is advisable to undergo practical training for the longest possible periods of time.

§ 4

Voluntary industrial internship

The prescribed weeks mark the minimum duration of the compulsory internship. It is highly recommended to complete further voluntary industrial placements at relevant companies.

§ 5

Practical training providers

(1) Given the knowledge and practice that the student is supposed to obtain through the internship, the experience of corporate working methods and the understanding of social aspects within the working process, it is necessary to complete the internship with a medium-sized or big company which is recognised as a vocational training provider by the Chamber of Commerce and Industry. In addition, internships are possible at all sort of companies that guarantee practical training according to the standards laid down in this Regulation. Normally, businesses in the field of trade, maintenance and services with no industrial production shall not be eligible. For the same reason no recognition shall normally be granted for practical work at an institute belonging to a university, at the university's associate institutes, in one's own company or the enterprise of relatives.

The competent Chamber of Commerce and Industry (Industrie- und Handelskammer) and the career guidance department of the job centre (Berufsberatung des Arbeitsamtes) will provide information about companies suited for an industrial placement. The university is unable to arrange internships for the students; however, it will help to identify companies offering internships through the Examination Board (Prüfungsausschuss) of the Business Administration and Engineering programme, the Internship Office (Praktikantenamt) and the practical training office (Praktikumsbüro) of the Academic Centre for Studies and Career (AKZENT).

(3) During the internship the students are subject, without exception, to the corporate rules of the practical training provider. It is expected that the intern students excel by their willingness to cooperate, helpfulness and collegiality. The success of the internship depends on the interest and commitment displayed by the interns, while the students themselves must take care that the compulsory contents of the practical training are covered.

(4) The intern students are attended by a supervisor or any other suitable person at the industrial company who shall ensure reasonable practical training according to the given corporate training opportunities and taking into account the provisions of this Internship Regulation. He or she shall also counsel the intern students if technical questions arise.

§ 6

Legal and social position of the intern student

(1) The students themselves are responsible for organising their internship. Therefore before sending in an application or, at the latest, before starting the practical training the intern student should carefully go through the provisions governing the internship, the requirements of reporting about the practical training, etc., by making use of this Internship Regulation or, if necessary, by contacting the university's Internship Office (Praktikantenamt).

(2) The relationship between the intern student and the company becomes legally binding through the internship contract to be concluded between the two parties. This contract specifies the rights and duties of the intern student and of the practical training provider plus the type and duration of the internship.

(3) The question of insurance is governed by the applicable German laws. The competent health insurance company and mutual insurance association (Berufsgenossenschaft) can be contacted for further information. Intern students are insured against accidents at work for the duration of the internship at the insuring institution (mutual insurance association) covering the practical training provider. Pursuant to the provisions of the German Social Security Code (SGB) and the Act on Social Insurance for Employees (AVG), only working students can be exempt from the obligation to insure, because, strictly speaking, academic studies only comprise the sort of studies that take place at the university and are of a predominantly theoretical nature.

(4) The internship is considered to be part of the tertiary education and is therefore eligible to financial assistance according to the German Federal Educational Promotion Act (BAföG) For further information, please contact the competent authorities.

§ 7

Log book and certificate

(1) The intern student shall prepare a log book (DIN-A4) about the technical contents of the practical training with consecutive self-written short reports, drawings, wiring diagrams, etc. covering his or her practical assignments

and observations. By preparing this log book, the student shall learn to present technical matters in a concise manner. The reports can describe work processes, tools, equipment, etc. They are supposed to be 1 to 2 DIN-A4 pages long per week (including eventual drawings) and must be prepared on a weekly basis. Moreover, the student is expected to report daily which type of activities he or she was engaged in and for how long. The reports can also be more extensive, describing fields of activities that took more than a week. The report must be stamped and signed by the supervisor in charge of the intern student at the practical training provider.

(2) The respective report must show that the student was deeply involved with his or her practical assignments. Therefore it is necessary to focus on some experiences and observations and to treat them more in detail. However, students should refrain from describing objects or specialised facilities and procedures that are subject to secrecy. A mere listing of activities or the reproduction of the contents from technical books will not be accepted.

(3) In detail, the report shall comprise:

- a covering sheet summarising the details of the internship (running number and specification of this particular internship), company and duration of the internship (starting and ending date, duration in weeks);
- the weekly summaries as on the attached form "Internship record" (Annex A5);
- the weekly work reports (size: 1 to 2 DIN-A4 pages per week) in the form of a log book according to sections (1) and (2).

(4) With regard to the commercial activities it shall be sufficient to specify the activities and mention the departments of the company where the internship took place in the certificate to be issued in line with section 5.

(5) The practical training provider must issue a testimonial (Zeugnis) or certificate about the internship for the student. The testimonial or certificate must include the name of the company providing the training, the department, place of training, personal data, the fields of activity and the duration plus, in the case of a testimonial, an assessment of the student's work. Working days that the student missed due to illness or vacation are not counted for the duration of the practical training and must therefore be mentioned explicitly.

§ 8

Recognition procedure

(1) The recognition of the internship is through the Internship Office (Praktikantenamt) of the respective department of the Faculty of Engineering at the Duisburg-Essen University. For the recognition the properly completed work record (confirmed by the company) and the certificate about the internship must be presented in the original.

(2) Testimonials and log books need to be submitted promptly to the Internship Office, that is within 6 months after completing the respective part of the practical training. An exception is made for practical work accomplished before the start of the university studies.

(3) The presented papers must clearly document the type and length of the individual parts of internship. An affidavit cannot replace a certificate about an internship.

(4) The Internship Office shall decide whether a practical training is in line with this Internship Regulation and can be recognised as part of the compulsory internship. A practical training, covered by insufficient reports, which are either incomplete or not fully understandable, is only recognised in part.

§ 9

Recognition of previous practical work

(1) Practical work done before the start of the university studies is brought to the knowledge of the Internship Office during the enrolment period or at the beginning of the studies, by submitting all the necessary documents.

(2) Upon request of the student, the Internship Office of the respective department of the Faculty of Engineering of the Duisburg-Essen University will decide about the recognition of times from a completed practical vocational training (apprenticeship) and job experience for the required industrial internship, based on the presented certificates and log books according to the rules and regulations of this Internship Regulation. The acknowledgement will be based on the recognition tables that are available at the Internship Office.

(3) Technical work at the German Federal Armed Forces or during the non-military service (e.g. in the field of maintenance) can be considered for a maximum of 6 weeks for the technical part of the internship required for the Bachelor degree course, provided the requirements of the Internship Regulation are fulfilled (level 2 or more of service and maintenance according to the German regulations). Verification can be through submission of certificates (general certificates about the activities), testimonials of the official agency and reports covering the practical work in accordance with this Regulation, though without the signature of the official agency. The German Federal Minister of Defence has decreed that the respective certificates can be issued and that reports about the practical work are permissible. Technical courses of the professional promotion service of the Federal Armed Forces (Berufsförderungsdienst) can be recognised in addition. For information, please turn to the competent district draft board (Kreiswehrrersatzamt) – professional promotion service.

(4) The practical training at Technical Grammar Schools and Technical Colleges and vocational training as technical assistant in mechanical or electrical engineering can be considered for a maximum of 6 weeks for the technical part of the industrial internship, provided the corresponding documents are presented and recognised.

(5) All in all, alternative training at the Federal Armed Forces, in the course of the non-military service and at schools, as specified in sections (3) and (4), cannot account for a period of more than 8 weeks.

§ 10

Vacation, illness and absence

Working days that the student misses due to vacation, illness or other reasons are not counted for the duration of the practical training, so in these cases the internship must be extended corresponding to the period of absence.

§ 11

Special arrangements

Upon request, the Internship Office can make special arrangements for students with a proven physical disability.

§ 12

Internship abroad

It is highly recommended to accomplish a part of the practical training abroad. Internships abroad are subject to the requirements contained in this Internship Regulation plus the additional requirement that the log book must be in German or in English and that the testimonial/certificate must be accompanied by a certified translation, if issued in another than the a.m. languages.

§ 13

Transitional provisions

(1) This Internship Regulation applies to all students enrolled on the Bachelor/Master degree courses in Business Administration and Engineering at the Duisburg-Essen University.

(2) Practical work accomplished before this Regulation entered into force can be recognised by the Internship Office upon consultation with the Examination Board.

§ 14

Entry into force and publication

This Internship Regulation shall enter into force with effect from 01 October 2003. It shall be published in the Bulletin of the Duisburg-Essen University.

Adopted per decision of the Faculty Council of Faculty 3 – Faculty of Economics of the Duisburg-Essen University dated 19/06/2004 and of the Faculty Council of Faculty 5 – Faculty of Engineering at the Duisburg-Essen University dated 24/03/2004.

Duisburg and Essen, on 2 July 2004

The Founding University President
of the Duisburg-Essen University

University Professor Dr Lothar Zechlin

II. Additional provisions and explanatory notes for the Bachelor and Master degree courses in BUSINESS ADMINISTRATION AND ENGINEERING with a specialisation in MECHANICAL ENGINEERING AND MANAGEMENT

The present Internship Regulation is based on the "Framework Regulation for the Internship in the degree courses of Mechanical Engineering and Process Engineering at German Universities" adopted at the meeting of the Federation of Faculties of Mechanical Engineering and Process Engineering (Fakultätentag) in Vienna on 06 July 2000. Practical work that has already been recognised by an Internship Office of the faculties and departments belonging to the Federation of Faculties of Mechanical Engineering and Process Engineering are therefore fully recognised by all other Internship Offices of these faculties and departments without any further verification of equality.

II.1 Aim of the internship

In the run-up to the study course the future students shall get to know in practice the production, shaping and finishing of workpieces, the composition and use of these products plus the economic and managerial aspects of the production process. In addition, they are supposed to gain insight into workpiece testing, the assembly of machines and equipment and their installation on site.

II.2 Internship schedule

(1) The internship consists of a general technical internship (technisches Grundpraktikum), an advanced technical internship (technisches Fachpraktikum) and an advanced commercial internship (kaufmännisches Fachpraktikum).

(2) An industrial internship of at least 12 weeks is required for the Bachelor degree course, while 4 weeks shall be completed as a general technical internship and 8 weeks as an advanced technical and/or commercial internship according to Annex A2. The 12-week industrial internship must be accomplished and presented for recognition upon registering for the Bachelor's thesis at the latest. At least 8 weeks of the internship should be completed in the pre-study period and another 4 weeks during the academic studies.

(3) An industrial internship of at least 8 weeks is required for the Master degree course, while a part of it must be completed as an advanced technical internship and a part as an advanced commercial internship according to Annex A3. The 8-week industrial internship must be accomplished and presented for recognition upon registering for the Master's thesis at the latest. At least 4 weeks of the internship should be completed in the pre-study period and another 4 weeks during the academic studies.

(4) As far as possible, the general internship should be done in one period. The individual activities of the advanced technical internship can be completed in any order. It is preferable to gain work experience at different

companies, while a placement with one company should last for a minimum of 2 weeks.

(5) Upon enrolment it will not be officially checked whether the student has already completed his or her general internship. Nonetheless it is recommended that the students complete the internships mentioned in sections (2) and (3) before the first semester's lecture period starts, because otherwise notable delay can be caused for the further course of the studies, since during the semester breaks the students will be busy taking or preparing examinations and intensively deepening the subject matters.

II.3 General technical internship structure

The purpose of the general internship is to get a first insight into industrial processing and to acquire vital basic knowledge. Under the guidance of his or her supervisor the intern student shall get to know different materials and ways to finish and process them and learn about processing facilities and procedures.

For the general internship practical experience must be proven from the areas of work specified and explained in Annex A1 of this Internship Regulation.

II.4 Advanced internship structure

(1) Through the advanced internship the student is supposed to acquire specialised knowledge about technologies and corporate management processes. Therefore it is reasonable to complete this internship during the semester break of the advanced study period. Then the advanced internship will deepen and link the practical experience obtained during the general internship and the theoretical knowledge acquired during the studies.

(2) For the advanced internship practical experience must be proven from the areas of work specified and explained in Annex A2 of this Internship Regulation.

II.5 Recognition procedure

(1) Practical work that has already been recognised by an internship office of the faculties and departments belonging to the Federation of Faculties of Mechanical Engineering and Process Engineering shall be fully recognised by all other internship offices of these faculties and departments.

(2) Recognised internships of technical courses of study other than Mechanical Engineering at universities in Germany or abroad shall be recognised, provided they comply with the requirements of this Internship Regulation. For this purpose the corresponding proof must be submitted, like certificates by the company, information about the applicable internship regulation and reports written during the internship.

II.6 Gainful employment

Practical work with a main focus on earning money, for which the company does not expressly confirm that this was an "industrial placement", which however is conducive to the student's training in the sense of the present regulation, can be recognised for a maximum period of 4 weeks, provided it was carried out in the fields of work mentioned herein and at appropriate companies. It shall be necessary to present the corresponding work certificates and internship records written according to this Internship Regulation.

III. Additional provisions and explanatory notes for the Bachelor/Master degree courses in BUSINESS ADMINISTRATION AND ENGINEERING with a specialisation in POWER AND MANAGEMENT

III.1 Aim of the internship

(1) The internship shall provide intern students with an insight into modern methodologies with regard to the design, realisation and use of IT systems or into modern processes and facilities for the development and production of electrotechnical and IT components and systems; this shall be achieved by closely watching or actively participating in such work processes.

(2) It is particularly desirable to engage in activities involving the acquisition of experiences in project design and management, team work and international cooperation.

III.2 Internship schedule

The internship for the Bachelor degree course must be accomplished and presented for recognition upon registering for the final Bachelor's thesis at the latest; the internship for the Master degree course must be accomplished and presented for recognition upon registering for the final Master's thesis at the latest.

III.3 Practical training providers

(1) Upon request, a part of the internship for the Bachelor degree courses can also be completed at a crafts enterprise. Decisions about the recognition of practical training at computer and media centres are taken upon request on a case-to-case basis.

(2) Practical work as a student assistant at an associate institute of the Duisburg-Essen University that cooperates technically with the Faculty of Engineering can be recognised upon request, taking into account the amount of time spent working and the normal working hours of an

intern student. Moreover, practical work as a working student at a company in accordance with §5 (1) can be recognised taking into account the time spent working and the normal working hours of an intern student.

III.4 Log book and certificate

If the student has worked as a merchant or an engineer before enrolling for the Business Administration and Engineering programme, it shall not be necessary to submit a log book. The same procedure shall apply for all relevant practical experiences obtained not later than a year before enrolling for the Business Administration and Engineering programme .

III.5 Recognition of previous practical work

(1) Practical work accomplished abroad before enrolling for the Business Administration and Engineering programme, e.g. during a Bachelor course in Computer Science, a degree course in Electronic Engineering or Computer Engineering or a degree course in Economics is recognised upon request for the internship of the Bachelor degree course. The documents filed together with this request must allow for an examination whether the practical work to which the request refers was performed in line with the requirements of this Internship Regulation. For this purpose the request must be accompanied by certificates/testimonials and a log book or, if this is not available, a list of activities specifying their nature and scope in the German or English language. The certificates must be submitted with a certified translation, if issued in another than the a.m. languages.

(2) Practical work as an engineer or merchant accomplished abroad upon successful completion of a Bachelor degree in Computer Science, a degree course in Electronic Engineering or Computer Engineering or a degree course in Economics is recognised upon request for the internship of the Master degree course. For this purpose the request must be accompanied by certificates/testimonials and a list of activities specifying their nature and scope in the German or English language. The certificates must be submitted with a certified translation, if issued in another than the a.m. languages.

Annex A1

**Structure of the
GENERAL TECHNICAL INTERNSHIP
(training curriculum [Ausbildungsplan]) for the
Bachelor degree course in
BUSINESS ADMINISTRATION AND ENGINEERING
with a specialisation in
MECHANICAL ENGINEERING AND MANAGEMENT**

(1) The internship for the Bachelor degree course in BUSINESS ADMINISTRATION AND ENGINEERING (with a specialisation in Mechanical Engineering and Management) totals 12 weeks, with 4 weeks being dedicated to the general technical internship and 8 weeks to the advanced internship according to Annex A2.

(2) The minimum duration of the general technical internship that can be individually planned with the subjects GP1 to GP4 listed in section 3 shall be 4 weeks. At least one internship must fall under one of the sections GP1 to GP4.

(3) General internship subjects

GP1: Metal cutting manufacturing processes 1-4 weeks

GP2: Metal forming manufacturing processes 1-4-weeks

GP3: Casting manufacturing processes 1-4 weeks

GP4: Joining and separating methods 1-4 weeks

The following list contains practical work examples included in the blocks GP1 – GP4 and it is recommended that the intern student should get practical experience of at least one of them:

GP1: Metal cutting manufacturing processes
Filing, chiselling, sawing, manual thread cutting, turning, planing, milling, boring, counterboring, broaching, grinding, honing, lapping.

GP2: Metal forming manufacturing processes
Open die and drop forging, cold forming/ impact extrusion, rolling, deep drawing, spinning, punching, precision blanking, bending, straightening, riveting.

GP3: Casting manufacturing processes
Model making, mould making, wet and dry casting, casting (sand casting, gravity die casting, centrifugal casting, lost wax casting), sintering, powder metallurgy and plastics processing (extrusion, injection moulding, blow moulding).

GP4: Joining and separating methods
Oxy-acetylene, arc and resistance welding, torch cutting, special welding and separating processes, soldering, adhesive bonding, plastic welding. Basic courses in gas fusion and electric welding held by the "Deutscher Verband für Schweißtechnik e.V." (DVS - German Welding Society) shall be recognised.

Annex A2

**Structure of the
ADVANCED INTERNSHIP
(training curriculum [Ausbildungsplan]) for the
Bachelor degree course in
BUSINESS ADMINISTRATION AND ENGINEERING
with a specialisation in
MECHANICAL ENGINEERING AND MANAGEMENT**

(1) The advanced internship totals 8 weeks, with at least 4 weeks being dedicated to an advanced commercial internship and the remaining 4 weeks either to an advanced technical internship or an advanced commercial internship.

(2) Advanced technical internship (0-4 weeks)
The advanced technical internship can be individually planned with the engineering subjects FP1 to FP4 listed in section 3. Here at least one internship must fall under one of the sections FP1 to FP4.

(3) Advanced technical internship subjects

FP1: Research, development, construction, testing
1-4 weeks

FP2: Production planning and control
1-4 weeks

FP3: Product planning and product management
1-4 weeks

FP4: Practical work relating to the degree subject as agreed with the internship office (Praktikantenamt)
1-4 weeks

The following list contains practical work examples included in the blocks FP1 – FP4 and it is recommended that the intern student should get practical experience of at least one of them:

FP1: Research, development, construction, testing:
Work in project groups, development and construction departments, research teams, testing departments.

FP2: Production planning and control: Operations scheduling, work flow planning in production, definition of structural and process-oriented organisations, plant development, supervision and control of plants and processes (PLC, process computers, process control systems, controller programming), logistics

FP3: Product planning and product management:
Planning and placement of products, marketing, purchasing (procurement) and sales, controlling

FP4: Practical work relating to the degree subject as agreed with the Internship Office: Practical work relating to the degree subject not mentioned in the blocks FP1 to FP3

(4) Advanced commercial internship (4-8 weeks)
The advanced commercial internship can be individually planned, however, it has to be completed in a practical work area relating to business administration, regardless of the chosen economic sector.

Annex A3**Structure of the industrial placement
(training curriculum [Ausbildungsplan]) for the
Master degree course in
BUSINESS ADMINISTRATION AND ENGINEERING
with a specialisation in
MECHANICAL ENGINEERING AND MANAGEMENT**

(1) To enrol on the Master degree course in BUSINESS ADMINISTRATION AND ENGINEERING (with a specialisation in Mechanical Engineering and Management) the student must have completed the general and advanced internships required for the Bachelor degree course in BUSINESS ADMINISTRATION AND ENGINEERING (with a specialisation in Mechanical Engineering and Management) as laid out in Annexes A1 and A2.

(2) Advanced technical internship

The minimum duration of the complementary advanced technical internship for the Master degree course in BUSINESS ADMINISTRATION AND ENGINEERING (with a specialisation in Mechanical Engineering and Management) shall be 8 weeks; it can be completed as advanced technical internship (0-8 weeks) and/or commercial internship (0-8 weeks). It is recommended to dedicate half of the internship to an advanced technical internship.

(3) Advanced technical internship (0-8 weeks)

The advanced technical internship can be individually planned with the subjects FP1 to FP4 listed in Annex A2. It is possible to choose any of these subjects, however, students have to make sure that each practical work activity falling under one of the subjects FP1 to FP4 is done for at least 1 week while not exceeding 4 weeks. Practical work areas that have already been covered during the advanced internship for the Bachelor degree course in BUSINESS ADMINISTRATION AND ENGINEERING (with a specialisation in Mechanical Engineering and Management) according to Annex A2 cannot be chosen again.

(4) Advanced commercial internship (0-8 weeks)

The advanced commercial internship can be individually planned according to Annex A2. It has to be completed in a practical work area relating to business administration, regardless of the chosen economic sector.

Annex A4

**Areas of practical work in the context of
the industrial internship
for the Bachelor / Master degree course in
BUSINESS ADMINISTRATION AND ENGINEERING
with a specialisation in
POWER AND MANAGEMENT**

(1) The internship for the Bachelor degree course in BUSINESS ADMINISTRATION AND ENGINEERING (with a specialisation in Power and Management) totals 12 weeks, while 4 weeks must be dedicated to the technical industrial placement and 4 weeks to the commercial industrial placement.

(2) The minimum duration of the compulsory internship for the Master degree course in BUSINESS ADMINISTRATION AND ENGINEERING with a specialisation in Power and Management shall be 8 weeks; it can be completed as a technical industrial placement (0-8 weeks) and/or a commercial industrial placement (0-8 weeks). It is recommended to dedicate half of the internship to a technical industrial placement.

(3) Technical industrial placement

The technical industrial placement can be individually planned with the areas of practical work listed in Table 1.

(4) It is urgently recommended to bring the activities performed during the technical industrial placement in line with the content and specific orientation of the academic studies as best as possible to ensure the industrial placement can fully unfold its preparatory effect for later professional life.

(5) However, it is not necessary to cover a minimum number of these 10 practical work areas. Likewise, the performance of activities is neither supposed to cover all nor is it restricted to those examples listed in parenthesis for a given practical work area. The purpose of those 10 practical work areas is rather to provide orientation for selecting activities intended to match the academic studies. With regard to the areas of practical work listed in Table 1, only the following two restrictions shall apply :

- Not more than 8 weeks of the required minimum of 12 weeks for the technical industrial placement in the context of the Bachelor programme shall be dedicated to the fields of activity 1 to 3.
- The areas of practical work 1 to 3 cannot be chosen for the compulsory 8-week technical industrial placement for the Master degree course.

(4) Commercial industrial placement

The advanced commercial internship can be individually planned, however, it has to be completed in a practical work area relating to business administration, regardless of the chosen economic sector.

Table 1:

Areas of practical work in the context of the technical industrial placement

1.	Basic manual and mechanical activities relating to metal and plastic working (e.g. filing, sawing, chiselling, bending, scribing, gauging, boring, thread cutting, turning, milling, planing, grinding)
2.	Joining techniques (e.g. soft and hard soldering, welding, riveting, adhesive bonding, crimping, wrapping)
3.	Manufacturing of electrotechnical components, parts and assemblies (This also includes e.g. manufacturing circuit boards, printing and soldering boards and producing high quality soldered connections.)
4.	Assembly, installation, testing, maintenance and repair of devices and equipment for electrotechnical and IT applications (This includes, among others, measuring and control devices, visual display terminals, microcomputers and other electronic devices.)
5.	Programming (This also includes, among others, implementing simple, independent functions, e.g. device drivers, format converters, input/output functions, static and dynamic memories.)
6.	Using application programmes (This also includes using programmes for spreadsheet analysis, data management and data bases, input and editing of technical drawings, wiring diagrams, texts and graphical elements, developing of multimedia representations, using network-based communication techniques, etc.)
7.	Calculation, project planning, construction, computer-aided techniques, work in practical and applied informatics
8.	Assembly, installation, testing, maintenance, commissioning and repair of systems for computer science, electrotechnical and IT applications
9.	Work in research, testing and development laboratories and in test facilities
10.	Software design, implementation and testing

ANNEX A5: Form "Internship record"

Internship record No _____ dated from _____ to _____ 20____		_____ Name of intern student	
_____ Internship training provider		_____ Department	
Day	Practical work fields covered by the internship	Individual hours	Total hours
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Remarks by the intern student		Remarks by the internship supervisor	
Date _____	Intern student _____	Date _____	Internship supervisor _____