V e r k ü n d u n g s b l a t t

of the Duisburg-Essen University - Bulletin

Volume 4 Duisburg/Essen, 13 November 2006 Page 681 No 105

Internship Regulation for the Bachelor degree course in NanoEngineering at the Duisburg-Essen University dated 6 November 2006

Based on §2 section 4 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 21 March 2006 (NRW Gazette of Laws and Ordinances 2003 p. 119), the Duisburg-Essen University has adopted the following Internship Regulation:

Summary of contents:

§ 1
Area of application

This Internship Regulation is based on the Examination Regulation for the Bachelor degree course in NanoEngineering at the Duisburg-Essen University (published in the "Verkündungsblatt" of the Duisburg-Essen University - Bulletin No 105/2006, in the following called Examination Regulation). It contains the rules for the practical training (internship) of students of the Bachelor degree course.

§ 2
Aim of the internship

(1) The practical training (internship) in industrial companies helps the students to understand the lectures better and to participate actively in the exercises, seminars and projects offered in the course of the Bachelor degree course in NanoEngineering. 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 a vocational training course. 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.

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

§ 3
Scope and duration

(1) Based on §6 of the Examination Regulation, the competent Faculties of Engineering and Physics require the student of the Bachelor degree course in NanoEngineering to complete an internship of an overall duration of 15 weeks. This internship consists of an initial internship (Vorpraktikum) of at least 8 weeks and an advanced internship (Fachpraktikum) of at least 7 weeks. An additional industrial internship is not compulsory for the Master degree course, but is highly recommended to improve the career prospects.

(2) 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.

(3) The initial internship must be accomplished and presented for recognition upon registering for the Bachelor's thesis at the latest. The advanced internship can only be recognised following the successful presentation of a lecture during a seminar according to §13 (2). The advanced internship must be recognised before the Bachelor degree can be awarded.

§ 4
Voluntary industrial internship

The prescribed weeks for the practical work 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 skills that the student is supposed to obtain through the internship, the observation of economic working practices and the introduction into social aspects of the working process, it is necessary to complete the internship at companies which are recognised as vocational training providers by the Chamber of Commerce and Industry. In addition, internships are possible at all sorts of major engineering offices and other enterprises specialised in system and/or technology development that guarantee practical training according to the standards laid down in this Regulation.

Businesses in the field of trade, maintenance and services with no industrial operations shall not be eligible. For the same reason no recognition shall normally be granted for practical work accomplished as a student assistant.

(2) 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 the internship. 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 B/M degree courses, the internship office of the department at the Faculty of Engineering (Praktikantenamt, in the following Internship Office) and the practical training office (Praktikumsbüro) of the Academic Counselling Centre for Studies and Career (ABZ).

(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 a 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.

(5) Upon individual request, the initial internship for the Bachelor degree course can also be completed at crafts enterprises. Decisions about the completion of practical training at computer and media centres are taken upon request on a case-to-case basis.

(6) 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.

§ 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 daily working hours of the intern student are determined on basis of the normal daily working time at this specific place of work.

(4) The question of insurance is governed by the applicable German laws.

(5) 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 student shall prepare a log book (DIN-A4) about the internship in the German or English language 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 choose some experiences and observations as an example 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 on the attached form "Internship Record" (see Annex A2)
- 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) 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.

(5) If the student has worked as an engineer, physician or chemist before enrolling for the Bachelor degree course in NanoEngineering, it is not necessary to submit a log book. The same procedure applies to all relevant practical experiences obtained not later than a year before enrolling on the Bachelor degree course in NanoEngineering.

§ 8
Recognition procedure

(1) The recognition of the internship is through the Internship Office (Praktikantenamt). For the recognition the properly completed work record (confirmed by the company through its signature and stamp) 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.

(5) The recognition can only be granted if a certificate is presented confirming the active participation in the seminar (in the form of a lecture, see §13).

§ 9
Recognition of previous practical work

(1) Practical work accomplished 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 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 recognised for the initial internship, 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 Defense has decreed that the respective certificates can be issued and that reports about the practical work are permissable. Technical courses of the professional promotion service of the Federal Armed Forces (Berufsförderungsdienst) can be recognised in addition. For infor-

mation, please turn to the competent district draft board (Kreiswehrersatzamt) – professional promotion service.

(4) Practical training at Technical Colleges and vocational training as technical assistant in the field of mechanical or electrical engineering, vocational training as a physical technical assistant or chemical technical assistant can be recognised for the compulsory initial internship, provided the corresponding documents are presented and recognised.

(5) Practical work accomplished before enrolling on a Bachelor degree course in the context of another study course can be considered for the internship upon request. 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.

§ 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 impairment.

§ 12
Internship abroad

It is highly recommended also to accomplish practical training abroad. If proof about such internships abroad is presented, the duration of this practical work can be recognised as part of the internship. 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
Scientific supervision of the advanced internship

(1) At the start of every winter semester an introductory course is offered providing guidance on the internship.

(2) The advanced internship includes a one-semester seminar where every participant must deliver a lecture which is essentially a report on his or her practical experiences. This seminar may eventually be carried out in the form of an intensive seminar. At the beginning of each semester information about such organisational aspects is provided. The participants must enrol on this seminar at the start of the semester and get a participation certificate which needs to be submitted to get the advanced internship recognised.

(3) Every student is assigned a scientific supervisor. Before starting the advanced internship the student must consult his or her supervisor. During the advanced internship the supervisor must be kept up-to-date in an appropriate manner.

§ 14
Transitional provisions

This Internship Regulation applies to all students enrolled on the Bachelor degree course in NanoEngineering at the Duisburg-Essen University.

(4) Recognition shall be granted for any practical training, accomplished before this Regulation entered into force, provided it complies with the "Internship Regulation for the integrated study course in Electrical Engineering", published in the Bulletin No 15/2001, or the "Internship Regulation for the integrated diploma study course in Mechanical and Plant Engineering at the Duisburg Gerhard Mercator University" in the preliminary version dated 15/12/2003.

§ 15
Entry into force and publication

This Internship Regulation shall enter into force on the day after its publication in the "Verkündungsblatt" of the Duisburg-Essen University – Bulletin.

Adopted per decisions of the Faculty Council of the Faculty of Engineering dated 13/09/2006 and of the Faculty Council of the Faculty of Physics dated 19/09/2006.

Duisburg and Essen, on 6 November 2006

For the Founding University President
of the Duisburg-Essen University
The Head of Administration

By proxy

Eva Lindenberg-Wendler

Annex A1

Examples of practical work in the context of the internship for the Bachelor degree course in NanoEngineering: initial internship (Vorpraktikum)

1.	Basic manual and mechanical activities relating to metal and plastic working
2.	Joining techniques
3.	Manufacturing of components, parts and assemblies for electrotechnical, electronic, optoelectronic or engineering applications
4.	Basic activities in physical or chemical laboratories
5.	Assembly, installation, testing, maintenance and repair of devices and equipment for electronic, optoelectronic or engineering applications

Examples of practical work in the context of the internship for the Bachelor degree course in NanoEngineering: advanced internship (Fachpraktikum)

1.	Calculation, project planning, computer-aided construction in fthe field of electronic, optoelectronic or engineering applications
2.	Manufacturing and testing of components, circuit elements and systems for electronic, optoelectronic, engineering or process engineering applications
3.	Work in the research, testing and development departments of the electronic/ optoelectronic, engineering or chemical companies
4.	Work in the production and assembly departments of the electronic/ optoelectronic, engineering or chemical companies
5.	Work in analytical laboratories of the electronic/ optoelectronic, engineering or chemical industry
6.	Software design, implementation and testing
7.	Using application programmes

The aim of the above listed twelve practical work areas is to provide orientation for selecting activities. However, it is strongly recommended to bring the activities performed during the industrial internship in line with the content and specific orientation of the academic studies as best as possible to ensure the internship can fully unfold its preparatory effect for later professional life.

A N N E X A 2 Model 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**