Common Internship Regulations
for the Diploma, Bachelor's Degree and Master's Degree courses

Mechanical Engineering, Electrical and Information Engineering,
Mechatronics, Production and Logistics, Optical Technologies,
Nanotechnology, Power Engineering and Industrial Engineer

at Leibniz Universität Hannover

Please note that this document is a translation of the German regulations. It is provided for the assistance of international students only and has no legal standing. The German version entitled Gemeinsame Praktikumsordnung für die Studiengänge Maschinenbau, Elektrotechnik und Informationstechnik, Mechatronik, Produktion und Logistik, Optische Technologien, Nanotechnologie, Energietechnik und Wirtschaftsingenieur is legally binding in every case.
1. **Validity of these Internship Regulations**

The Examination Regulations of Leibniz Universität Hannover require that students of the aforementioned degree courses complete industrial experience in the form of internships (Praktika). This experience as a whole will be referred to as the "internship" (Praktikum) and its acquisition will be governed by these Internship Regulations (Praktikumsordnung).

These Internship Regulations, once in force, apply to all students beginning their studies from Winter Semester 2012-13 onwards. Students who began their studies at an earlier time, when different Examination Regulations and Internship Regulations applied, should note the transitional regulations explained in Section 11.

2. **Role of the Internship Office**

A completed internship, or internship period (Praktikumsabschnitt), must be checked to ensure that it meets the requirements. The internship will then be accepted and credit awarded. Acceptance for credit (Anerkennung) is carried out by the joint Internship Office of the Faculty of Mechanical Engineering and Faculty of Electrical and Information Engineering (Praktikantenamt). The acceptance process is governed by these Internship Regulations.

The Internship Office also provides advice regarding the planning and completion of internships. To avoid future problems with the acceptance of an internship, it is advisable in case of doubt to discuss a planned internship with the Internship Office.

3. **Purpose of the internship**

The internship enables students to gain further knowledge and experience important for their later careers, particularly industrial experience which can only be obtained by working in a typical business environment together with experts.

As preparation for their studies, each new student should complete an Initial Internship (Vorpraktikum) before beginning their course, during which they acquire their first experience of industry.

The Advanced Internship (Fachpraktikum) gives students the opportunity to apply and improve their practical skills through the completion of productive and challenging assignments in their own specialist fields.

An important aspect of the internship is learning to understand the sociological workings of a company, its social structure and the relationship between managers and workers. Internships are designed to offer flexibility, and students are able to set their own priorities in the planning and completion of their placements.

As a source of help and experience in decision-making, such as when choosing a professional specialism, the Initial Internship is especially useful when completed early in the course as several short placements in varied fields of work.

The Advanced Internship is most valuable when completed entirely or largely as a cohesive Interdisciplinary Internship (interdisziplinäre Praktikumstätigkeit) according to Section 4.3 of these Internship Regulations. When organised later in the course, the experience can more effectively improve the student’s knowledge and assist with decisions regarding career entry.
4. Structure of the internship

4.1 Scope

The total length and structure of the required internship depend upon the student’s course. The completed internship must be accepted as meeting the requirements detailed in Appendix 1.

The completed Advanced Internship must be accepted for credit before the student can receive approval for their proposed degree thesis. The completed Initial Internship must normally be accepted for credit by the end of their 3rd semester, depending upon the applicable Examination Regulations.

The internship is divided into the so-called Initial Internship and Advanced Internship, with each part having a different professional emphasis. In order to gain acceptance, the activities completed must meet the requirements listed in Section 4.2 (Initial Internship) or Section 4.3 (Advanced Internship). Provided that these conditions are met, students are free to plan the division and sequence of their own activities. Within each chosen field of activity, students should make use of the opportunities available at the company providing the internship to gain experience of as many types of work as possible.

One week of industrial experience corresponds to one regular working week at the respective company. If working time is missed due to holiday, illness or other personal reasons, it must be made up; in this case it may be necessary to ask the employer for a contract extension in order to complete the internship period.

University students completing an internship are not required to attend vocational school (Berufsschule). If a student chooses to take internal company training, it should not significantly reduce the time devoted to normal work.

It is desirable to divide the complete internship into periods of work with several different companies. However, work at a single company should last for a minimum of two consecutive weeks.

The required length of internship should be regarded as a minimum. It is recommended that students voluntarily acquire further industrial experience.

4.2 Initial Internship

4.2.1 Objectives and characteristics

The Initial Internship enables students to gain their first experience of industry. Within a working environment of experts, students, teachers and technical personnel, the student is able to develop practical knowledge of varied manufacturing processes and facilities.

The Initial Internship should be completed with expert guidance and according to a pre-planned schedule. The objective of the student’s employment should be to gain experience of selected fields of work; in order to make productive use of their time, the scope of their activities should be appropriately defined. On the other hand, they should not be engaged purely in training (e.g., in a training workshop), but should become familiar with operational processes in a genuine industrial environment.

The Initial Internship does not demand knowledge from the student’s university course. It is therefore recommend that the Initial Internship is completed before the beginning of their studies.
4.2.2 Structure of the Initial Internship

The Initial Internship is divided into specialist experience and activity fields which correspond to the various areas of study. See Appendix 2 for details.

4.2.3 Acceptance, certification and chronological structure of the Initial Internship

In order for the Initial Internship to be accepted for credit, it must meet the requirements listed in Appendix 1 and 2.

If a working week involves a variety of activities, the week should be assigned to a single field of activity according to the predominant type of work.

The whole Initial Internship must normally be accepted for credit by the end of the student's 3rd semester; precise requirements can be found in the respective Examination Regulations.

The Initial Internship is intended to be completed before a student begins their course. For this reason, credit points (Leistungspunkte, LP) are not offered for the Initial Internship and timetables do not include periods of time for its completion. Should a student not complete the Initial Internship before beginning their course, it is their responsibility to plan the late completion of the internship into their individual programme of study.

The acceptance process is governed by Section 10 of these Internship Regulations.

4.3 Advanced Internship

4.3.1 Objectives and characteristics

The Advanced Internship enables a student to experience the typical work and assignments of graduates working in the student's chosen specialist field. It gives the student the opportunity to work alongside professional engineers in roles such as product development, planning or leadership.

During the Advanced Internship, students should endeavour to integrate themselves into their professional environments as best as possible, working actively and productively. Each student should therefore come into close contact with typical assignments and working practices and have the opportunity to meet and observe professional engineers working in the specialist field.

In this respect, the character of the Advanced Internship differs from the completion of a final project and thesis with a company. A final project and thesis explicitly consist of work on a special, self-contained theme, whereas the Advanced Internship does not.

4.3.2 Structure of the Advanced Internship

These Internship Regulations do not specify the precise fields of work appropriate for a particular student's internship. In principle, the suitability of a proposed Advanced Internship depends upon meeting the objectives described in Section 4.3.1 above and the suitability of the respective company according to Section 5.

In order for a period of work to be accepted for the Advanced Internship it is essential that the work takes place in a specialist field typical for graduates of the respective course.

Within this framework, each student should plan their Advanced Internship to suit their own specialist interests and professional goals. However, in case of doubt over the acceptability of a planned internship, especially in a special or unusual field of work, it is advisable to consult the Internship Office at the earliest opportunity. The chronological structure of the Advanced
Internship can be found in Appendix 1. The internship must include a breadth and diversity of engineering activities. To this end, at least one of the following requirements must be met:

- **Different companies:**
  This option involves the division of the Advanced Internship into periods of employment with at least two geographically and organisationally independent companies. In this case, occupation in similar fields of work at the different companies is permissible. A maximum of 8 weeks of experience at each individual company will normally be accepted.

- **Different divisions of the same company:**
  This option involves the completion of the Advanced Internship at a single company. However, the internship must be completed into at least two distinct parts, with the student working in different divisions of the company. The divisions must perform significantly different activities and provide the student with varied experience. For each part of the internship, a maximum of 8 weeks of experience will normally be accepted.

- **Interdisciplinary work:**
  This option involves the completion of the Advanced Internship in one and the same organisational unit of a single company. However, the student's tasks must involve substantial interdisciplinary and interdepartmental work. The nature and objectives of the student's work must offer the opportunity to observe and participate in co-operative projects with personnel from other departments of the company. The extent of the co-operative work must be such that its interdisciplinary aspects can be adequately described in the student's report (see Section 7).

### 4.3.3 Acceptance, certification and chronological structure of the Advanced Internship

In order for the Advanced Internship to be accepted for credit, it must satisfy the general requirements regarding objectives and implementation which are listed in Section 4.3.1, at least one of the structural criteria explained in Section 4.3.2 and also the conditions of Appendix 1.

The fulfillment of these requirements, especially when seeking the acceptance of interdisciplinary work, must be confirmed by the certificates provided by the company and clearly explained in the student's report.

The completed Advanced Internship must be accepted for credit before the student can receive approval for their proposed degree thesis.

It is intended that the Advanced Internship is more challenging than the Initial Internship and requires more advanced skills. Students taking a bachelor's degree course should therefore complete the Advanced Internship during the second half of their time at university; those students taking a diploma should complete the internship after their intermediate examination (Vordiplom). In principle it is also possible to utilise experience gained during earlier study, or before starting university, as part of the Advanced Internship, provided that the experience meets the requirements for credit listed here.

The Advanced Internship is intended to be completed immediately before a student begins their final project and thesis, as shown in the example study plan for the relevant courses.

For the required 12 weeks of Advanced Internship, 15 credit points are available. If the completion of the internship spans more than one semester, the credit points will be divided between the semesters with 1.25 points awarded for each accepted week.
Section 10 of these Internship Regulations explains the process through which a completed Advanced Internship is accepted for credit.

5. **Suitable companies**

The internship is an essential part of an engineering education. Companies offering internship places should be aware of this objective and be able to provide appropriate care and supervision for the student.

The knowledge and experience forming the objectives of the Initial Internship and Advanced Internship can best be acquired with medium to large manufacturing companies in the fields of mechanical engineering, motor vehicles and electrical engineering. Other companies which operate extensive industrial installations may also be suitable. Practical work with maintenance and service companies, or work with university institutes, is unsuitable and therefore not permitted. An exception is the bachelor’s degree course Nanotechnology; students of this course may complete their internships with medium to large companies in the fields of manufacturing and service or alternatively with application-orientated scientific establishments in the micro- and nanotechnology field. In this case, the internship should consist of a well-defined research or development project that the student is able to complete.

Practical manufacturing work may also be suitable for the Initial Internship.

The Initial Internship must take place at a company officially recognised by the Chamber of Commerce (Handelskammer) as a suitable training institution. The internship must be supervised by a person responsible for training.

Engineering consultancy firms and independent research establishments may also be suitable for parts of the Advanced Internship.

The Advanced Internship must be supervised by an engineer qualified in the relevant specialist field.

The Internship Office does not arrange internships. Students are responsible for finding their own internship opportunities and submitting their own applications. The following sources offer advice and information regarding suitable companies:

- Notice boards in the Internship Office and relevant university institutes
- Internet job websites
- The local Chamber of Commerce and other sources of information regarding business in the region
- Discussions with other students and personal contacts

Each student is personally responsible for ensuring that they meet the requirements regarding suitable companies and the completion of the internship as explained in these Internship Regulations. To this end, the student should carefully clarify the details of their proposed internship with the employer in advance. Students may not assume that they will automatically meet the requirements simply by organising an internship.

To avoid future problems with the acceptance of an internship, it is advisable in case of doubt to discuss a planned internship with the Internship Office.

6. **Substitutes and exceptional rules**

6.1 **Training as a skilled worker and employment as an engineer**

Completed training as a skilled worker may be used to substitute up to 100% of the Initial Internship and Advanced Internship, provided that it meets the requirements listed in these
Internship Regulations. The corresponding certificates and possibly the relevant training curriculum will be required. Practical employment as an engineer may be accepted, but will receive credit for only one-half of its actual duration. Company certificates or confirmation of employment are necessary.

6.2 Other employment

Short-term employment completed during the course of university study may be accepted for credit, even if it is primarily intended as a source of income and is not explicitly certified as the completion of an internship. In this case it must count as educational in the context of these regulations. According to these regulations it must also be completed with a suitable company, working in one of the named fields of activity, must be accompanied by a correctly-written internship report and requires confirmation of employment. Such work may be accepted for credit, but only up to a maximum of 20% of the required internship duration.

6.3 Internships completed at another German university or comparable institution in the same degree subject

Internships completed as part of a degree course in the same subject at another German university or comparable institution may be accepted for credit. A student changing universities can receive credit for the complete duration of such internships. The internships must have been accepted by the internship office of the relevant institution and proof of acceptance must be supplied.

6.4 Other university internships

Other previously-completed internships not covered by the provisions of Section 6.3 above, either in other degree subjects or at other universities, may be accepted for credit provided that they adequately meet the requirements of these Internship Regulations. Proof of acceptance by the relevant institution is required. Other documents such as company certificates, reports and information regarding the internship regulations of the other institution may also be required.

6.5 Specialised practical training at a technical school

Specialised practical training provided by a technical school, possibly in conjunction with a training position, may be accepted for credit up to a maximum of 50% of the required duration of the Initial Internship. Suitable schools in Germany include Technikerschulen together with technically orientated Berufliche Gymnasien and Fachoberschulen. The training must satisfy the required activity fields listed in these Internship Regulations and 40 hours (of 60 minutes each) will be considered to be a working week for the purpose of the internship. The corresponding school certificates and possibly training curricula will be required.

Industrial internships completed while studying at an ordinary school will not be accepted for credit.

6.6 Technical training and service with the German armed forces

Those liable for military service in Germany who wish to study a technical subject at university may apply for assignment to the technical training ranks of the German armed forces. Time served in a training or service role with military maintenance units may be accepted for credit up to a maximum of 50% of the required duration of the Initial Internship, provided that the work corresponds to at least “Equipment Maintenance Level II” (Materialerhaltsungsstufe II) and satisfies the required activity fields listed in these Internship Regulations. The corresponding “General Activity Reports” (Allgemeine Tätigkeitsnachweise, also known as
or alternatively the military unit’s own certificates will be required, together with a report written according to these Internship Regulations (in this case a report without a signature from the unit is acceptable).

The issue of certificates and the completion of internship reports are officially permitted by the German Ministry of Defence (Bundesministerium für Verteidigung).

6.7 Technical training during civilian national service or voluntary year

Technical training completed in Germany as part of civilian national service (Zivildienst) or a voluntary year (Freiwilliges Jahr) may be accepted for credit up to a maximum of 50% of the required duration of the Initial Internship, provided that the training meets the requirements of these Internship Regulations. In order to gain acceptance, a certificate from the relevant institution detailing the training must be provided. A report written according to these Internship Regulations will also be required (in this case a report without a signature from the institution is acceptable).

6.8 Specialised technical training courses

The Professional Development Service of the German Armed Forces (Berufsförderungsdienst der Bundeswehr) offers specialised technical courses for serving members of the armed forces. Other organisations offer comparable courses. Successful participation in such courses may be accepted for credit up to a maximum of 50% of the required duration of the Initial Internship, provided that the courses correspond to fields of activity required by these Internship Regulations. If acceptance for credit will be sought, it is advisable where possible to check the suitability of the course with the Internship Office in advance. Acceptance requires a certificate from the relevant organisation confirming successful participation together with a report completed according to these Internship Regulations (in this case a report without a signature from the organisation is acceptable).

6.9 Exceptional arrangements

Students with disabilities may make special arrangements with the Internship Office.

7. Reports detailing internship activities

Reports must be written throughout the duration of the internship and must be submitted to the Internship Office when seeking acceptance for credit.

The reports serve as an exercise in the presentation of technical material and therefore must be written by the individual student. Reports may describe work processes, facilities, tools, etc., together with the student’s own experiences of the tasks performed, provided that the descriptions do not break any confidentiality requirements of the company.

The reports must describe the student’s own activities, observations and insights. General descriptions without a direct connection to the student’s work (e.g., excerpts from textbooks or other internship reports) will not be accepted. The student should strive to present the material in a clear and concise form, making appropriate use of their own sketches, technical drawings and diagrams. The use of material from other sources such as brochures should be avoided.

For each week of the Initial Internship, a summary listing each day’s activities and a report explaining one specific activity in more detail must be prepared. These should have a length of one to two A4 sides, inclusive of pictures. Pre-printed report books for industrial training are suitable for this purpose (for an example, see Appendix 5).
During the Advanced Internship, reports should not be structured as daily records, but instead as summaries of complete placements or selected assignments within a placement. The length of these reports should correspond to the proportion of the internship described (see below for the recommended length of the overall report). If permitted by the company, internal company reports written by the student in the course of the internship may be used for this purpose. The technical and chronological progression of the placement must be described by an overall report, which should also give a brief description of the company and fields of activity. An overall report should have a length of one to two A4 sides per week, inclusive of pictures.

Apart from the exceptions listed in Section 6, all reports must be signed, dated and stamped by the supervisor responsible for the internship.

8. Certification of internship periods

In addition to the reports detailing an internship period, the student must submit a certificate from the company when seeking acceptance for credit. The original certificate must be provided for inspection together with a copy of the certificate. The certificate should be issued in the company’s own form. Alternatively a pre-prepared certificate can be obtained from the Internship Office (see Appendix 3).

The certificate must include:

- Company name (and possibly division), location and industrial sector
- Student’s forename, surname, date of birth and place of birth
- Dates of the beginning and end of the internship period
- Breakdown of the internship activities by type and duration
- Explicit statement of the number of days absent, even if none were missed

It must also be clear that the certificate refers to an internship period, preferably through the use of an appropriate title or job description.

The certificate should also provide an assessment of the student’s work and written reports.

9. Internship in a foreign country

The completion of an internship (or part of an internship) in a foreign country is permissible and highly recommended. Internship activities must nevertheless meet all the requirements of these Internship Regulations.

If an internship is completed abroad, the report and certificate may alternatively be written in English. If the certificate is neither written in German nor English, a certified translation must be provided.

In addition to conducting their own search for an internship abroad, a student may be able to find a placement through various exchange programmes. One example is the IAESTE Programme organised by the Deutscher Akademischer Austauschdienst (DAAD). However, securing a placement through such a programme does not guarantee that the internship will meet the requirements. Each student must use Section 4 of these Internship Regulations to verify that their proposal meets the requirements.
10. **Acceptance procedure**

If a student wishes to seek credit for work completed prior to the start of their course (Initial Internship according to Section 4.2, Advanced Internship according to Section 4.3 and various substitutes according to Section 6), the application should be submitted during the time period provided for this purpose, which falls during their 1st semester of study.

Documents relating to work placements completed during a student's course should be submitted within one year of completion of the work, together with the application for acceptance.

The application requires a form to be completed, describing the work and how it corresponds to the required fields of activity (see Appendix). The form must be submitted together with the company certificate, a copy of the certificate and the student's original internship reports. The Internship Office will inspect the documents and return the application form marked with their decision regarding the acceptance. In cases of doubt the student may be asked to attend a meeting. All documents will be returned to the student and must be retained until the end of their course.

A file will be opened for each student in the Internship Office. This file will hold complete records of applications for acceptance and the results of these applications, and will enable the Internship Office to verify if the requirements of these Internship Regulations are being met. When an internship period is accepted for credit, written confirmation will be provided. The student must then give this confirmation to the Examination Office. Such confirmation is also available to students who leave the university without completing their courses.

11. **Transitional regulations**

Within the degree courses mentioned above, internship periods accepted for credit before these Internship Regulations came into force will automatically be accepted as meeting the current requirements. Internship periods which were started according to the old regulations will be accepted as meeting the current requirements provided that they meet the old requirements. These Internship Regulations take account of the fields of activity described by older Internship Regulations and the former fields of activity will therefore still be accepted.
## Appendix 1 Structure of the Internship

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</thead>
<tbody>
<tr>
<td><strong>Duration of the Initial Internship</strong></td>
<td>Diploma</td>
<td>6 weeks</td>
<td>-</td>
<td>8 weeks</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0 - 4 weeks</td>
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<td>-</td>
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<tr>
<td>Bachelor</td>
<td>6 weeks</td>
<td>8 weeks</td>
<td>8 weeks</td>
<td>8 weeks</td>
<td>8 weeks</td>
<td>8 weeks</td>
<td>8 weeks</td>
<td>-</td>
<td>0 - 4 weeks</td>
<td>8 weeks</td>
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<tr>
<td>Master</td>
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<tr>
<td><strong>Required number of activity fields in the Initial Internship</strong></td>
<td>Diploma</td>
<td>2 weeks VP 1 and at least 2 further fields chosen by the student</td>
<td>-</td>
<td>2 weeks VP 1 and at least 2 further fields chosen by the student</td>
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<tr>
<td>Bachelor</td>
<td>2 weeks VP 1 and at least 2 further fields chosen by the student</td>
<td>2 weeks VP 1 and at least 2 further fields chosen by the student</td>
<td>2 weeks VP 1 and at least 2 further fields chosen by the student</td>
<td>2 weeks VP 1 and at least 2 further fields chosen by the student</td>
<td>-</td>
<td>at least 1 week in each chosen field of activity</td>
<td>-</td>
<td>-</td>
<td>2 weeks VP 1 and at least 2 further fields chosen by the student</td>
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<tr>
<td>Master</td>
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<tr>
<td><strong>Duration of the Advanced Internship (no compulsory activity fields)</strong></td>
<td>Diploma</td>
<td>20 weeks*</td>
<td>-</td>
<td>16 weeks</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>9 - 13 weeks</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Bachelor</td>
<td>4 weeks**</td>
<td>12 weeks</td>
<td>-</td>
<td>12 weeks</td>
<td>-</td>
<td>12 weeks</td>
<td>-</td>
<td>6 - 10 weeks</td>
<td>-</td>
<td>12 weeks</td>
<td>12 weeks</td>
<td>12 weeks</td>
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<tr>
<td>Master</td>
<td>16 weeks</td>
<td>16 weeks</td>
<td>-</td>
<td>12 weeks</td>
<td>-</td>
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</table>

* The division into Field A (Operational Advanced Internship - Betriebstechnisches Fachpraktikum) and Field B (Engineering Advanced Internship - Ingenieurnahes Fachpraktikum) has been replaced by the universal description of the fields of activity.

4 weeks from these 20 weeks must be completed before the student takes the intermediate examination (Vordiplom)

** before completion of the intermediate examination (Vorprüfung)
**Appendix 2: Experience and Activity Fields for the Initial Internship**

Work in a particular field must last for a minimum of a week.

<table>
<thead>
<tr>
<th>VP 1</th>
<th>Development of practical skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>VP 2</td>
<td>Workshop and operational activities</td>
</tr>
<tr>
<td>VP 3</td>
<td>Acquisition of knowledge regarding the manufacture of components, assemblies and devices</td>
</tr>
<tr>
<td>VP 4</td>
<td>Acquisition of knowledge regarding operational procedures in industry</td>
</tr>
<tr>
<td>VP 5</td>
<td>Acquisition of knowledge regarding the use of information technology in industry</td>
</tr>
<tr>
<td>VP 6</td>
<td>Acquisition of knowledge regarding material development and analysis</td>
</tr>
</tbody>
</table>

**Manufacturing of metal and plastic products by hand,** machining processes (e.g., sawing, filing, drilling, screw cutting, turning, planing, milling, grinding), primary forming processes (e.g., casting, sintering, injection moulding), secondary forming processes (e.g., cold forming, bending, straightening, pressing, rolling, drawing, cutting, stamping, riveting, forging), cutting and joining processes (e.g., soldering, welding, gluing, flame cutting)

**Workshop and operational activities such as assembly, quality control and the service or repair of machines, apparatus, equipment and systems**

**Manufacturing by machine: manufacturing technologies and processes, semiconductor manufacturing, manufacturing using lasers**

**Participation in further operational procedures, e.g., assembly, quality control, experimentation, testing, system operation, service, maintenance, repair**

**Measurement, testing and signal analysis using electrical parameters in technical systems; installation and testing of hardware and software components in an industrial environment; programming of information technology systems in industry**

**Companies in the materials and chemical industries are suitable for this part of the internship**