



# Curriculum for the **Master's Program [Name]**

Curriculum 2008

This curriculum was approved by the Curricula Committee of Graz University of Technology in the session on dd. mm. 20yy

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On the basis of the Universities Organization and Studies Act (*UG 2002*), Austrian Federal Law Gazette No. 120/2002 in its current version, the Senate of Graz University of Technology issues the following curriculum for the [Name] master's program.

## **§ 1 General Information**

The [Name] master's program [in Natural Sciences/Technical Sciences] lasts four semesters. There is a total of 120 ECTS-Credits in the program. Graduates of this program are awarded the academic title of "Diplom-Ingenieurin" or "Diplom-Ingenieur", which is abbreviated as "Dipl.-Ing." or "DI". This is equivalent to the international "Master of Science" (MSc).

The content of this study program is based on the content of a bachelor's program with an appropriate subject orientation according to § 64 Paragraph 5 UG 2002, for example, the [Name] bachelor's program at Graz University of Technology. This bachelor's program has to be worth at least 180 ECTS-Credits. In order to achieve a total of 300 ECTS-Credits for the study programs, the same course cannot be counted for both the bachelor's program that entitled the student to be admitted and the master's program.

Depending on the previous education of the applicant to the program, up to [25] ECTS-Credits from the courses of the [Name] bachelor's program can be counted towards this master's program. The courses that are counted from the bachelor's program reduce the number of elective courses laid down in the curriculum accordingly. In addition, the governing body responsible for academic affairs can limit the choice of courses.

In order to complete this study program, students have to write a master's thesis and take a final examination before a committee as defined in § 7a.

## **§ 2 Qualification Profile**

Refer to the separate document "How to write a Qualification Profile".

## **§ 3 ECTS-Credits**

According to the European Credit and Accumulation Transfer System, the individual courses are allocated ECTS-Credits which describe the relative share of the workload. The workload of one academic year is 60 ECTS-Credits.

## § 4 Structure of the Program

The [Name] master's program consists of

1. [optinal] a compulsory subject [of at least n1 ECTS-Credits],
2. a [number of] elective subjects [that consists of n2 ECTS-Credits of elective courses]; [where a total of n3 ECTS-Credits have to be chosen],
3. n4 ECTS-Credits worth of free elective courses,
4. a Master's thesis (30 ECTS-Credits). The Master's thesis has to be assigned to the first or second subject.
5. n5 semester hours in total have to be completed in the master's program, of which n4 in the free elective courses.

The following table contains the division of the totals of ECTS-Credits into first subject, second subject, elective, and free elective courses.

Length of the [Name] master's program		4 semesters
Number of semester hours of courses that have to be completed		n5 semester hours
<b>Total amount not incl. master's thesis</b>		<b>90 ECTS-Credits</b>
Compulsory subject	n1 ECTS-Credits	
Elective *)	n3 ECTS-Credits	
Free elective courses (6 SH)	n4 ECTS-Credits	
Master's thesis		30 ECTS-Credits
<b>Total [Name] master's program</b>		<b>120 ECTS-Credits</b>

[/Additional remarks to the contents of the compulsory subject, number and structure of electives and rules for selection/]

## § 5 Content of the Program and Semester Schedule

<b>[Name] master's program</b>								
Subject	Course	Cs			Semester and ECTS			
		Sh	Type	ECTS	I	II	III	IV
<b>Compulsory</b>								
	Course 1	S1	T1	C1	C1			
	Course 2	S2	T2	C2		C2		
				C3		C3		
				Cn-1			Cn-1	
	Course n	Sn	Tn	Cn			Cn	
<b>Sum Compulsory</b>		<b>SuCo</b>		<b>SuCr</b>	<b>SuP1</b>	<b>SuP2</b>	<b>SuP3</b>	
<b>Sum Electives (§5a)</b>		<b>SuEI</b>		<b>SuCr</b>	<b>SuW1</b>	<b>SuW2</b>	<b>SuW3</b>	
<b>Master's thesis</b>				<b>30</b>				<b>30</b>
<b>Free electives (§5b)</b>		<b>n3</b>	<b>FR</b>	<b>n3</b>	<b>SuF1</b>	<b>SuF2</b>	<b>SuF3</b>	
<b>Sum</b>		<b>SuSh</b>		<b>120</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>

## § 5a Suggested Subjects

[List of Electives and corresponding courses, if possible in a table similar to §5]

## § 5b Free Elective Courses

Free elective courses in the [Name] master's program serve the purpose of setting individual focuses and the further development of students. They can be freely chosen from the courses offered at any recognized domestic or foreign university.

On average, each semester hour (SH) of a free elective course is worth 1 ECTS credit.

Courses, which were used to complete the bachelor's program that entitled the student admission to this program, are not a part of this master's program. If compulsory courses, which are intended for this curriculum, were already used in the previously described bachelor's program, then these have to be replaced by the same amount of additional elective courses.

## § 6 Admission Requirements for Examinations

No requirements for admission to examinations have been laid down.

## § 7 Regulations for Examination

Courses are assessed individually.

1. Examinations on courses held in the form of lectures (VO) have to cover the entire content of the course.
2. The assessment of courses held in the form of lectures with integrated practical exercises (VU), practical exercises (UE), design exercises (KU), projects (PR) and seminars (SE) takes place continually on the basis of contributions by the students and/or by accompanying tests.
3. Successful completion of examinations is assessed with "sehr gut" (very good, 1), "gut" (good, 2), "befriedigend" (satisfactory, 3) or "genügend" (sufficient, 4), whereas a negative result is given a "nicht genügend" (insufficient, 5). Specially indicated courses are assessed with "mit Erfolg teilgenommen" (with successful participation) or with "ohne Erfolg teilgenommen" (with unsuccessful participation).
4. If a subject is comprised of several examination performances that correspond to courses, then the mark for the subject has to be calculated by
  - a. multiplying the mark of the examination performance belonging to the subject by the ECTS-Credits of the corresponding course,
  - b. by adding up the values calculated according to point 5a),
  - c. by dividing the result of the addition by the sum of the ECTS-Credits of the courses, and
  - d. by rounding up the result of the division to a whole number mark (if necessary). Places after the decimal point that are greater than 0.5 are to be rounded up; otherwise rounded down.

The types of courses are explained in Part 3 of the Appendix.

In addition to the types of courses, the following maximum group sizes are set down:

1. The maximum group size for seminar/projects is 8 students. As an alternative, the Dean of Studies can also authorize a one-to-one seminar/project. In this case, the seminar/project is worth 0.75 project hours.

2. The maximum group size for seminars is 15 and for projects 8.

Places in the individual courses are given out according to the guidelines in Part 3 of the Appendix.

## § 7a Final Examination before a Committee

The prerequisite for admission to the master's examination before a committee is proof of the positive assessment of all examinations performances according to § 4 and § 5 as well as the positively assessed master's thesis.

[Regulations about members of the examination committee].

In the course of the master's examination before a committee, the student has to present the master's thesis that has been written in accordance with the regulations. He/she then has to defend the thesis before the members of the Examination Senate. [Additional regulations for the Examination, duration, overall assessment].

## § 7b Diploma

The diploma on the master's program includes

- a) all the examination subjects according to § 5a and their assessment,
- b) title and assessment of the master's thesis,
- c) the assessment of the final examination before a committee,
- d) the overall total of ECTS-Credits of the positively completed free elective courses according to § 5b as well as

the overall assessment according to § 73, paragraph 3, UG 2002.

## § 8 Interim Regulations

According to the [version of the curriculum/prior study Name] which was published in the TU Graz information newsletter (*Mitteilungsblatt*) on June 30<sup>th</sup>, 20yy, degree students, who have started the [Name] master's program before this curriculum comes into effect (October 1<sup>st</sup>, 20yy), are entitled to continue and finish their studies within the legal duration of studies plus an additional semester per stage of study (a total of 5 semesters). This means students have to complete the study program by the end of winter semester 20yy/yy+1. If the program is not completed within the specified time, students must automatically pursue their further studies according to the new curriculum.

Students are entitled to voluntarily adopt this curriculum at any time. Study Services has to be informed of this by means of an irrevocable written statement during the admission periods.

## § 9 Coming-into-effect

This curriculum came into effect on October 1<sup>st</sup>, 20yy.

## Appendix to the Curriculum of the [Name] master's program

### Part 1 of the Appendix:

#### Accreditation and Equivalency List

Courses that are the same with regard to name, type, number of ECTS-Credits and the number of semester hours are considered to be equivalent, and are thus not explicitly listed in the Equivalency List.

Accreditation by the responsible Dean of Studies is not required for these courses nor for the courses listed in the Equivalency List.

#### Accreditation List


#### Equivalency List


### Part 2 of the Appendix:

#### Recommended Free Elective Courses

Free elective courses can be freely chosen from the courses offered at any recognized domestic or foreign university according to § 5b of this curriculum. However, in order to broaden the students' knowledge base in the subjects of this study program, courses in foreign languages, social competence, the estimation of the consequences of technology and women's and gender studies are recommended. In particular, we would like to refer students to the courses offered at the Centre for Foreign Language and Postgraduate Education at Graz University of Technology as well as the Inter-University Research Centre for Technology, Work and Culture (IFZ).

#### Additional list of recommended Free Elective Courses


## Part 3 of the Appendix:

### Types of Courses

(according to the guideline on types of courses of the Curricula Committee of the Senate of Graz University of Technology on January 10<sup>th</sup>, 2005)

1. Lecture type courses: L, LP

In lecture type courses, students are given a didactically well-structured introduction to the sub-areas of the subject and its methods. Assessment takes place by examinations that are written, oral, written *and* oral as well as oral *or* written depending upon the examiner's choice. The examination procedure has to be defined in the course description.

a. L

In lectures (L), the content and methods of the subject are presented.

b. LP

Lectures with practical exercises (LP) offer instructions on how to acquire knowledge independently or how to apply it independently in examples in addition to an introduction to the sub-areas of the subject and its methods. The ratio of lectures to exercises is to be set down in the curriculum. The courses have an immanent examination character.

2. Seminar type courses: SE, SP

Seminar type courses promote scientific work and discussion and should be an introduction to the discursive and argumentative process of the subject. Students are required to submit written work and/or give an oral presentation as well as participate in the critical discussion. Seminars are courses with an immanent examination character.

a. SE

Seminars introduce students to scientific methods, to the working out and critical assessment of their own work results, to special topics in scientific literature and provide them with training in technical discussions.

b. SP

In seminar projects, students employ scientific methods to work on experimental, theoretical and/or constructive applied problems. They also write short research papers taking into consideration all of the required steps. Seminar projects are completed with a written paper and an oral presentation, which makes up part of the assessment. Seminar projects can be carried out as team or individual work, although the individual performance must still be able to be assessed when working in a team.

3. Practical exercise type of courses: PE, DE, LE, PR

In practical exercises, abilities and skills are developed as part of the pre-professional education and training in order to consolidate and/or expand the material that was presented in the corresponding lectures by means of practical, experimental, theoretical and/or design work. Practical exercises are courses with an immanent examination character. The maximum group size is set down in the curriculum or determined by the Dean of Studies. Special consideration has to be given to the necessary room and equipment. The curriculum can make the successful completion of the practical exercise a prerequisite for registration for the corresponding lecture examination.

a. PE

In practical exercises, the students are trained to use their capabilities to solve practical problems.

b. DE

In design exercises, students consolidate and/or expand on the subject-matter taught in the respective lectures in a constructive way. They provide students with capabilities and skills within the framework of a pre-vocational education and training. Special equipment and enough space are necessary.

c. LE

In laboratory exercises (LE), abilities and skills are developed as part of the pre-professional education and training under especially intensive supervision in order to consolidate and/or expand the material that was presented in the corresponding lectures by means of practical, experimental and/or design work. An important part of the laboratory exercises is the drawing up of short reports on the work conducted.

d. PR

In projects, experimental, theoretical and/or constructive/design applied work or small research projects are conducted that take all the necessary steps into consideration. Projects are completed by written work which is part of the assessment. Projects can be carried out as team or individual work, although the individual performance must still be able to be assessed when working in a team.

**The Granting of Places in Courses with a Limited Number of Participants:**

If more students register for a course than there are places, then additional groups or parallel courses are planned.

If in exceptional cases the respective maximum number of participants for an elective course is exceeded due to a lack of resources, then it has to be ensured that the students registered obtain the opportunity to complete this course at the earliest possible point in time.