



## **Curriculum for the University Graduate Programme “Master of Engineering in Traffic Accident Research” (TAR)**

On 18 October 2010, the Senate of Graz University of Technology approved the amendment to the curriculum for the university graduate programme “MEng in Traffic Accident Research” (TAR), which was passed by the Curriculum Committee for Doctoral Studies and University Graduate Programmes.

Announced in the Graz University of Technology's *Mitteilungsblatt* (information newsletter)  
of 19 July 2006, issue no. 20  
(original version)

Amendment 2011 announced in the *Mitteilungsblatt* of 14 March 2011, no. 11c

**AMENDMENT**  
**to the curriculum of the university graduate programme**  
**“MEng in Traffic Accident Research” (TAR)**  
**at Graz University of Technology**

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## **General regulations**

### **§ 1 Programme objective**

The university graduate programme “MEng in Traffic Accident Research” provides students with in-depth knowledge that can be applied in the areas of accident reconstruction and accident research. These are the most important prerequisites for a successful development in vehicle construction.

This university graduate programme aims to provide engineers the opportunity to obtain a sound education in this specialized area as well as better access to the following areas of employment:

- Accident reconstruction in courts and for insurance companies
- Accident research
- Vehicle development
- Safety engineering
- Road engineering
- Vehicle engineering

The university graduate programme expands the educational offerings as well as continuing education options. The main target groups are engineers and technicians who work in the automotive sector and are seeking an additional education and training in the area of traffic accident research (accident investigators, vehicle developers, insurance technicians, road engineers, etc.).

## **Graduate programme organisation**

### **§ 2 Duration and structure**

- (1) The programme lasts four semesters plus Master’s thesis.
- (2) 65 semester hours of courses are to be completed and a comprehensive paper (“Master’s Thesis”) must be written.
- (3) The programme is offered in a format adapted to the needs of participants who are working professionals. The programme consists of modules, blocked courses and distance learning elements which make it possible for working professionals to participate.
- (4) Graduates of this university graduate programme are awarded the academic degree of “Master of Engineering (Traffic Accident Research)”, abbreviated “MEng”.

### **§ 3 Academic direction and Programme administration**

- (1) A qualified member of Graz University of Technology who has a teaching qualification in a relevant subject is to be appointed the head of the programme by the responsible academic authority.
- (2) The head of the programme appoints other employees to academic and administrative positions according to the organisational demand.
- (3) An academic advisory board can be established for the purpose of evaluating and further developing this programme.
- (4) The Institute of Vehicle Safety of Graz University of Technology is entrusted with the academic, organisational and structural support of the programme.
- (5) The Institute is supported by Graz University of Technology’s service centres (Life Long Learning, accounting, human resources, admissions office, registration office and computing services *ZID*).

### **§ 4 Language of instruction**

- (1) The courses are offered in German and/or in English and in mixed forms (e.g. English specialist literature) as needed. Professional demands and prior knowledge of participants in the programme are taken into account.
- (2) The programme administrators can demand proof that the participant has sufficient language proficiency. If there is a demand and if competent instructors are available, the programme can be offered in other languages of instruction as well.

### **§ 5 Programme costs**

- (1) In order to run the university graduate programme in a cost-effective way, a programme fee will be set by the responsible academic authority by means of a decree following the proposal of the programme administration. If needed, the fee can be adjusted to budgetary demands.
- (2) Participants in the programme who are exclusively admitted to the university graduate programme must pay the programme fee and the *ÖH* fee (Austrian Union of Students) but not the tuition fee.
- (3) For each semester exceeding the minimum length of study, an additional programme fee in the amount of the set semester fee can be charged in order to cover the costs of continued advising of the participants.
- (4) A report on the financial conduct of the university graduate programme must be presented to the responsible academic authority once a year.

## **Admission**

### **§ 6 Application and admission procedure**

- (1) Application to the university training course is to be submitted in writing.
- (2) The admission procedure comprises an examination of the application documents and an interview before the admission committee, if necessary. An entrance examination can also be required.
- (3) Admission as a postgraduate master student is granted by the Rectorate and administered by the Registration Office.

### **§ 7 Admission requirements**

- (1) The admission requirement for the university graduate programme in “Traffic Accident Research” is the completion of a diploma programme at an Austrian university or university of applied sciences or an equivalent degree from a foreign post-secondary educational institution.
- (2) A qualification comparable to paragraph 1 can be accredited and must be determined by the programme administration. In any case, several years of relevant professional practice are a prerequisite for this.
- (3) The programme administration can demand proof of sufficient language proficiency.
- (4) The programme administration is responsible for choosing the members of the admission committee.

### **§ 8 Places in the programme**

- (1) The maximum number of study places available in a programme is to be set by the academic direction according to pedagogical and organisational points of view.
- (2) Admission to the university graduate programme is granted according to the number of places available. If there is a shortage in study places, they will be allocated in the order in which the binding applications were received.

## **Programme structure**

### **§ 9 Courses**

- (1) The university graduate programme “MEng in Traffic Accident Research” consists of the subjects listed in the Appendix that are offered as part of individual courses in the form of modules.

### **§ 10 Number of hours**

- (1) The programme structure “MEng in Traffic Accident Research” comprises courses with a total of 65 semester hours or 120 ECTS credits.
- (2) Pursuant to the European Credit Transfer System (ECTS, 253/2000/EEC, gazette no. L 28 of 3 February 2000) in comparison with § 51, para. 2, point 26, UG 2002 (Universities Act 2002), the ECTS credits listed in the Appendix will be granted upon successful completion of the courses.

### **§ 11 Examinations**

- (1) All examinations must be written or oral.
- (2) The course instructor must inform the students at the beginning of the course whether the examinations on the individual subjects are written or oral.
- (3) Negatively assessed examinations can be repeated up to two times, after which the participant must register again for this course in the next semester the course is offered. As a consequence, the length of the programme is prolonged by one more semester. When repeating the respective course, the participant must pay the programme fee.

### **§ 12 Accreditation of examinations**

- (1) Positively assessed examinations of equivalent courses from recognized domestic and foreign post-secondary and extra-university educational institutions can be accredited by the programme administration upon the filing of a petition by the student.
- (2) Particular consideration is given to positively assessed examinations in relevant study programmes (law, social and economic sciences, technical studies, humanities, or the equivalent at a university of applied sciences).
- (3) The petition for accreditation must be submitted in writing to the academic direction.

### **§ 13 Master’s thesis**

- (1) Participants must write a comprehensive paper (“Master’s Thesis”).
- (2) The content of the master’s thesis is oriented towards current studies, analyses and/or developments in traffic accident research.
- (3) The topic of the master’s thesis and its content must be presented in a rough draft to the academic direction for approval prior to beginning the thesis.
- (4) Participants have a maximum of 3 months to complete their master's thesis.
- (5) Academic supervision of the master’s thesis is provided by the Institute of Vehicle Safety in the amount of up to 15 semester hours per participant.
- (6) Once the thesis is completed, it must be submitted to the academic director for assessment.

## **Degree granted**

### **§ 14 Establishment of academic success and final examination before a committee**

- (1) Academic success is established by means of examinations in the individual courses, the positive assessment of the master’s thesis, and a final examination before a committee.
- (2) The final examination before a committee takes place before an examination senate and deals with the topic of the master’s thesis and associated subjects. There is also a defence of the master’s thesis.
- (3) To register for this examination before a committee, the participant must provide proof that he or she has successfully completed the course examinations according to § 12 (1) and that the master's thesis was positively assessed.

### **§ 15 Master of Engineering in Traffic Accident Research**

Once the final examination has been successfully completed, the participant is issued a diploma and the academic degree of “Master of Engineering (Traffic Accident Research)”, abbreviated “MEng. (TAR)”, is awarded.

## **Final and interim regulations**

### **§ 16 Validity of the curriculum**

This curriculum comes into effect as of 1 April 2011.

## University Graduate Programme “MEng in Traffic Accident Research” – Amendment 2010/2011

Semester	Subject Group	Lecture	SH (semester hours)	SH new	Lecturer
1	Transport Policy	Introduction to Transport Policy	1	1	Leonhard Höfler
1	Law	Fundamentals of Criminal Law and Civil Law	2	2	Roland Veit / Günter Wakolbinger
1	Technology	Mechanics 1	2	2	Rudolf Greimel
1	Technology	Piston Engines	2	2	N.N.
1	Technology	Automotive Engineering	2	2	N.N.
1	Technology	Traffic Safety Concepts for Infrastructure	2	2	Eva Maria Eichinger
1	Technology	Component Testing	1	1	Wolfgang Sinz, Stefan Kirschbichler
1	Psychology	Traffic Psychology	2	1	Christine Chaloupka-Risser
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University graduate programme “MEng in *Traffic Accident Research*” at TU Graz

Semester	Subject Group	Lecture	SH (semester hours)	SH new	Lecturer
2	Transport Policy	Passive Safety and Regulations in Vehicle Development	1	1	Norbert Schaub
2	Law	Methodologies in Expert Opinions (sample reconstructions)	1	1	Heinz Burg
2	Law	International Traffic Law	1	1	Weiß, Kloiber
2	Technology	Mechanics 2	2	2	Rudolf Greiml
2	Technology	Vehicle Safety 1	2	2	Hermann Steffan
2	Technology	Diagnostics and Repair	3	2	Johann Gwehenberger
2	Technology	Crash Testing	2	2	Wolfgang Sinz, Stefan Kirschbichler
2	Medicine	Biomechanics	2	2	Hermann Steffan
2	Technology	EuroNCAP		1	Michael van Ratingen
1	Technology	Vehicle Electronics		1	Georg Brasseur
2	Psychology	Perception & Visualisation	1	1	Jan Unarski
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Semester	Subject Group	Lecture	SH (semes ter hours)	SH new	Lecturer
3	Law	Insurance Fraud	1	1	Michael Weber
2	Technology	Pedestrian / Child Safety		1	Seeck
3	Technology	Reconstruction Methods 1 (conventional methods)	2	2	Karl-Heinz Schimmelpfennig
3	Technology	Mechanics 3 (multi-body method)	2	2	Walter Sextro
3	Technology	Vehicle Safety 2 (integrated safety)	2	2	Hermann Steffan
3	Technology	The Mechanics of Car Accidents	3	3	Hermann Steffan
3	Technology	Motorcycle Accidents	2	2	Johannes Priester
3	Technology	Primary and Secondary Safety of Trucks	2	2	Egon-Christian von Glasner / Alexander Berg
3	Medicine	Forensic Medicine	1	1	Mario Darok
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University graduate programme “MEng in *Traffic Accident Research*” at TU Graz

Semester	Subject Group	Lecture	SH (semester hours)	SH new	Lecturer
4	Technology	Methods of Reconstruction 2 (simulation methods)	2	1	Gustav Kasanicky
4	Technology	Vehicle Safety Testing Methods	1	1	Johannes Wernig
4	Technology	Mechanics 4 (finite elements method)	2	2	Bernd Mlekusch
4	Technology	Accident Research (data basis)		1	Dietmar Otte
4	Technology	Accident Investigation	3	2	Heinz Burg/Josef Plank
5	Master's Thesis		13	13	
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