

2017-2018

# Master of Transportation Sciences by Distance Learning

Traffic Safety

Mobility Management



# UHASSELT

KNOWLEDGE IN ACTION

# INTRO

A modern and international transport system is important for moving people, goods and information in a local, regional and (inter)national context. Moreover it is connected to economic growth! A continuous increase in traffic volumes, for passenger transport as well as freight forwarding transport, leads to major challenges concerning land use, impact on urban areas, traffic safety issues, traffic flow, atmospheric pollution and travel behaviour.

## A unique and multidisciplinary master's programme

The international master's programme of Transportation Sciences of Hasselt University is a multidisciplinary master's programme, which trains students to identify transportation and traffic safety issues and come up with solutions themselves, taking into account several parameters: economy, society, urban development, environment and infrastructure. Several transport and traffic safety issues are thus highlighted in an overall multidisciplinary manner.

## A pronounced international orientation

Since transportation is a cross-border field, it is also important to focus on international aspects of this domain. As a Master in Transportation Sciences we offer you an opportunity to regularly exchange views with experts from home and abroad. Teachers within the master's programme are regarded as experts in their field - both home and abroad. Students can also exchange views and experiences with fellow international students in the programme.



### FAST FACTS

#### PROGRAMME

international master programme  
Master of Transportation Sciences by Distance Learning

#### SPECIALIZATION

Traffic Safety or Mobility Management

#### DURATION

3.5 years - 18 ECTS preparatory programme +  
120 ECTS master programme

#### START DATE

September

#### LANGUAGE

English

#### SEMI-DISTANCE LEARNING PROGRAMME

attendance of residential blocks (1 week/semester)  
is required

#### LEARNING METHOD

a combination of lectures, private study, real-life case  
studies, an international study visit and an internship

### KEY BENEFITS OF THE MASTER IN TRANSPORTATION SCIENCES BY DISTANCE LEARNING

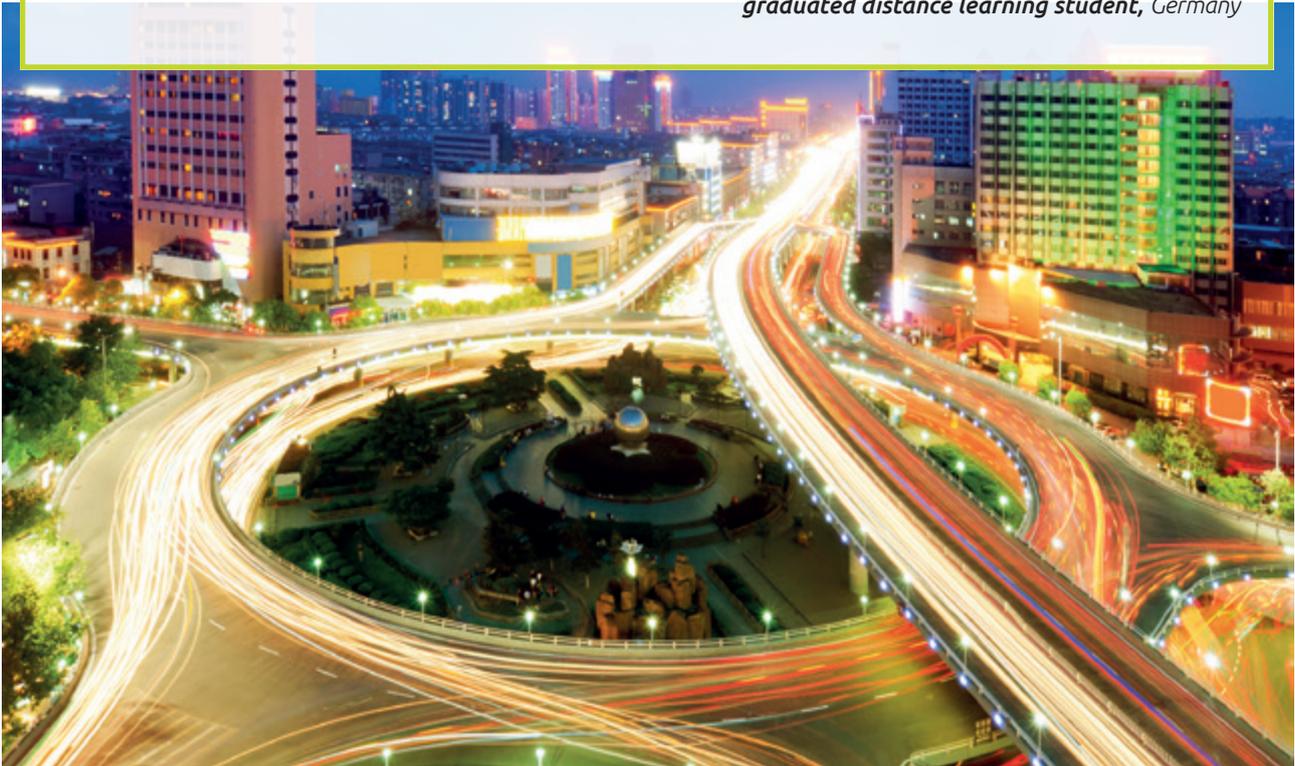
**The Master of Transportation Sciences by distance learning is tailored to professionals who want to specialize in traffic safety or transportation:**

- it is a multidisciplinary master's programme, which pays attention to economic, social, urban, environmental and infrastructural aspects;
- it takes into account sustainable development;
- it focuses on transportation, as well as on traffic safety in an international context;
- it is taught by internationally renowned professors from leading universities, specialised in traffic safety and transportation;
- it includes a 4-day study visit abroad during which students learn about and see the current best practice in solving transport problems in an international context;
- the programme can be completed at your own pace in combination with work and/or family life;
- experienced professionals from different fields and countries exchange information about transport and traffic safety problems, solutions and strategies;
- throughout an entire semester, you have the opportunity to gain professional experience through an internship.

# SPECIALISATIONS

**“The Master of Transportation Sciences is a well-balanced study course: covering all modes of transport, from walking to rail, both passenger and freight, theory and practice. While staying on the job, it qualified me to take the next step in my career in the field of mobility. And, even more important, I feel well prepared due to the studies!”**

*Christian Weirich,  
graduated distance learning student, Germany*



## Traffic Safety 1

Traffic safety is a global - growing - problem. In their lifetime, 1 in 3 citizens is involved in a traffic accident with casualties. In the specialisation Traffic Safety, students investigate which factors (infrastructure, vehicle, road user) cause traffic accidents and how these risks can be decreased. In this specialisation, attention is paid to technological innovations with regard to infrastructure and vehicle, as well as to how to understand and influence human behaviour through policy, education and sensitisation. The programme also has a driving simulator at its disposal. With the driving simulator, students can carry out experiments into the effects of physical, mental and visual limitations and the effects of road design and environment on driving behaviour in a controlled environment.

## Mobility Management 2

In the specialisation mobility management, students focus on how to influence modal choice and how to organise transport. If a certain traffic and transportation supply is created by means of road networks, public transport systems, bicycle networks ... it is up to you as transportation expert to tackle the challenge of using this supply as efficiently (minimum of traffic jams) and sustainable as possible. This requires a multidisciplinary approach.

E.g. to influence the behaviour of individuals in favour of sustainable transport modes (bus, train or bicycle), transportation managers have to develop a set of services or tools which complement infrastructural and pricing measures.

# STRUCTURE AND CONTENT OF THE MASTER'S PROGRAMME

The content and the degree of the programme are equal to the full-time programme, but the courses are organized in such a way that students are able to combine a job with their studies. The courses are taught during Residential Blocks (RB). Students only attend one week of classes per semester on campus. The Residential Block schedule follows a 2-yearly cycle. The internship and master's thesis can be carried out at your place of employment, so you will already benefit from your studies while still earning your degree.

The distance learning programme can be completed at your own pace and for every course that you complete, a certificate can be requested. The full programme can be completed in 3 and a half years, including the preparatory programme, the internship and the master's thesis.



Preparatory Programme

4 Residential Blocks

Internship

Master Thesis

**“The Master of Transportation Sciences at Hasselt University is the only at European level, able to provide such a multi-disciplinary approach to transportation issues.”**

*Alessio Sitran, master student, Italy*

MASTER'S PROGRAMME	
<b>PREPARATORY PROGRAM</b>	<b>18</b>
<b>RB 1</b>	<b>ECTS</b>
Freight Transport	6
Strategic Project Analysis	6
Study Visit & International Topics	6
<b>RB 2</b>	<b>ECTS</b>
Intelligent Transport Systems	6
Traffic Flows	6
Microsimulation Models	6
<b>RB 3</b>	<b>ECTS</b>
Environmental Economic Evaluation of Transportation Policy	6
Management of Transportation Companies	6
In-Depth Crash Investigation	6
<b>RB 4</b>	<b>ECTS</b>
<b>TRAFFIC SAFETY:</b>	
Road Safety Evaluation: Methods and Application	6
Traffic and Travel Behaviour	6
Behavioural Influence	6
<b>OR MOBILITY MANAGEMENT:</b>	
Analytical Skills for the Interpretation and Analysis of Travel Demand	6
Traffic and Transportation Models	6
Management and Prediction of Travel Demand	6
<b>INTERNSHIP</b>	<b>18</b>
<b>MASTER THESIS (PART 1 + PART 2)</b>	<b>30</b>
<b>TOTAAL</b>	<b>18+120</b>



# CAREER PROSPECTS

**“I did my internship in Austria, this international experience was the ideal opportunity to apply the theory from our courses to real-life cases.”**

*Emily Couwenberg, master student, Belgium*

As a Transportation Sciences master you can work in a varied number of organisations or professions. After all, transport experts are needed both by governmental bodies, private companies and in the non-profit sector. Are you looking for an exciting job, offering many career opportunities, then a master's degree in Transportation Sciences is the right choice for you!



## Examples of job:

### - **TRANSPORTATION PLANNER:**

drawing up and implementing sustainable urban mobility plans and policies relating to all kinds of transport systems. This includes roads and the use of cars, lorries and buses, rail networks and pedestrian systems for walking or cycling. Transport planners look at ways to improve these systems or how new systems can be implemented in certain areas. They will take into consideration issues such as climate change, the economy and the environment. The work of transport planners is often related to government policies and initiatives, such as trying to change people's travel behaviour by encouraging them to reduce their car use and take up walking, cycling or use public transport. Work can be carried out on different levels, from local to international, and may include tasks ranging from initial planning and design to completion and reviews.

### - **TRAFFIC SAFETY CONSULTANT:**

identifying and tackling dangerous locations by conducting research, issuing recommendations and developing training programmes on road traffic safety, focusing both on infrastructure and road users.

### - **MANAGER OR CONSULTANT IN A PUBLIC TRANSPORTATION COMPANY:**

detecting new opportunities for public transport services by making cost-benefit analyses (e.g. new railway lines), identifying the effects on the wider environment and formulating strategic advice based on these business cases.

- Drawing up and tailoring **SENSITISATION CAMPAIGNS AND EDUCATIONAL MATERIALS** to increase awareness on traffic safety issues.

### - **RESEARCHING NEW TRANSPORTATION SYSTEMS AND TECHNOLOGY**

(e.g. light rail), evolution of traffic and travel behaviour, impact of roundabouts on road safety, ...

# CONDITIONS OF ADMISSION

The Admission Board will consider all applications individually. The standard requirements set by Hasselt University are applicable to all applicants of the Master of Transportation Sciences.

## DEGREE REQUIREMENTS

All applicants should hold at least a university diploma or a diploma of higher education equivalent to a (academic) bachelor's degree. Depending on the diploma you obtained previously, you may have to do a link or preparatory programme at the start of your master's programme.

Students with **an academic bachelor's or master's degree**, other than Transportation Sciences, will have to do a preparatory programme of max. 18 ECTS. The preparatory programme can be combined with the master's programme.

If you have a **professional bachelor's degree**, you will have to do a link programme of max. 45 ECTS. The link programme is available for Dutch-speaking students only.

## LANGUAGE REQUIREMENTS

Sufficient knowledge of English is required and is to be certified by one of the below mentioned tests. Native speakers or holders of a degree, obtained in the English language are exempt from these tests:

- a TOEFL-score report (paper based: score 550 or more, computer based: score 213 or more, internet base: score 79-80).
- IELTS-certificate (min. overall band score 6.0).
- For citizens of China: APS certificate

## PROOF OF EMPLOYMENT

To obtain the statute of practitioner at Hasselt University, a student needs to submit one of the below during registration:

- provide proof of employment of min. 80 hours/month;
- provide proof of employment in a self-employed statute of min. 80 hours/month;
- provide proof of being a job seeker who is entitled to benefits.

## HOW TO APPLY

Online pre-registration is required via:

**<http://www.uhasselt.be/ApplicationForm>**

When you have uploaded all required personal information and documents, your application is complete and will be processed by the Admission Board.

The deadline for application for EEA and non-EEA students is 1 September.

## TUITION FEE

The tuition fee varies depending on how many credits you take up. The tuition fee for the Master of Transportation Sciences amounts to approx. € 906,1 per academic year. However, since students enrolled in the distance learning programme take up less courses per year, the annual tuition fee will be lower (approx. € 637,3). Fees may be subject to an increase each year. We advise you to visit our website for the most up-to-date tuition fee information.

### Contact info



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