



MASTER OF TRANSPORTATION SCIENCES

FAST FACTS

programme

international master programme
Master of Transportation Sciences

specialization

Traffic Safety or Mobility Management

duration

2 years, full time study - 18 ECTS preparatory programme
+ 120 ECTS master programme

start date

September

language

English or Dutch

full time on-campus

learning method

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

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

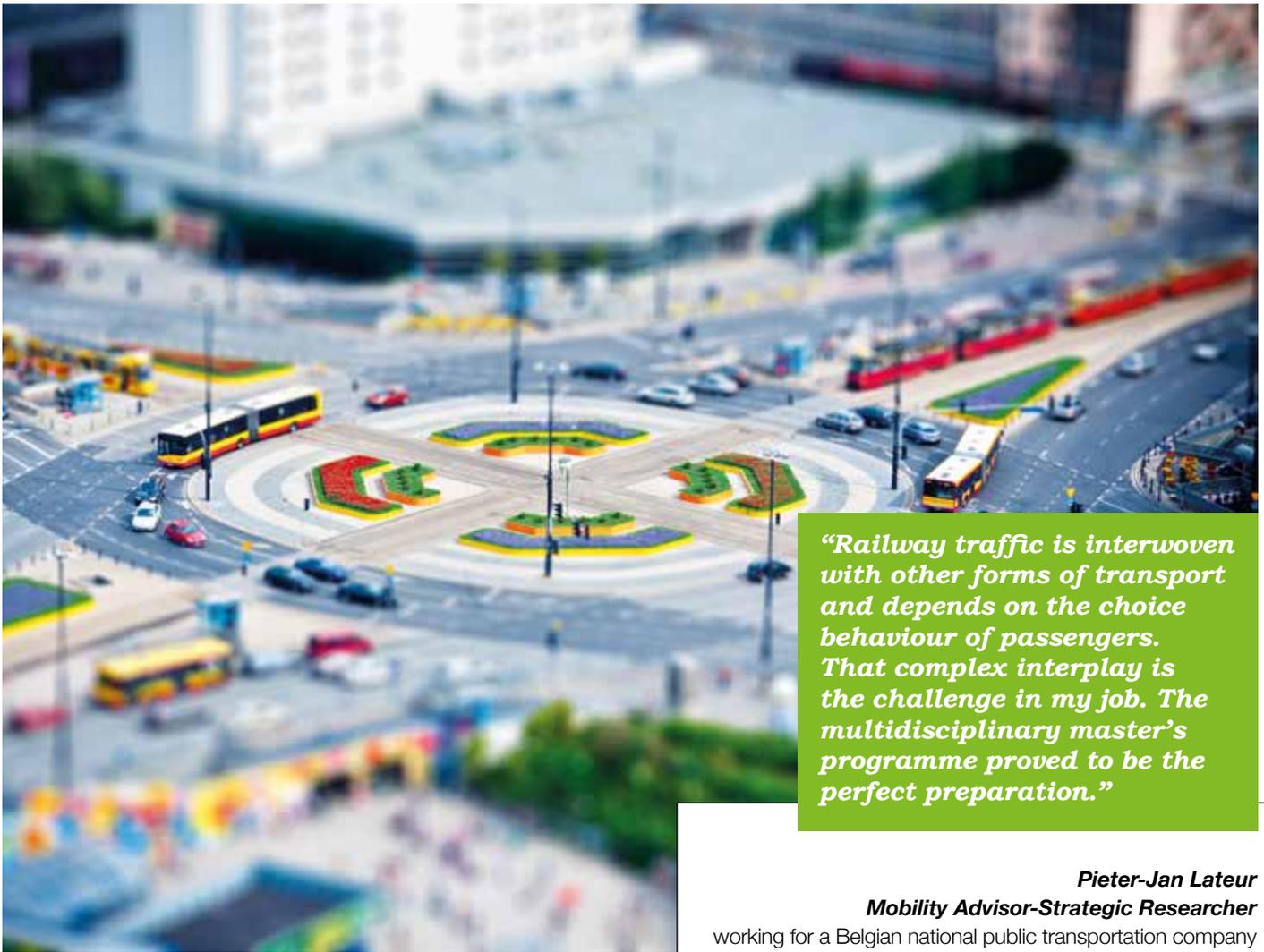
Since transportation is a cross-border field, it is also important to focus on international aspects of this domain. As a Master in Transportation Sciences we offer you an opportunity to regularly exchange views with experts from home and abroad. Teachers within the master's programme are regarded as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



KEY BENEFITS OF THE MASTER OF TRANSPORTATION SCIENCES

The Master of Transportation Sciences at Hasselt University is unique in that:

- it is a multidisciplinary master's programme, which pays attention to economic, social, urban, environmental and infrastructural aspects;
- it takes sustainable development into account;
- 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 an optional 4-day study visit abroad which offers students direct experience of the concepts and challenges which are taught in class;
- students from different 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.



“Railway traffic is interwoven with other forms of transport and depends on the choice behaviour of passengers. That complex interplay is the challenge in my job. The multidisciplinary master’s programme proved to be the perfect preparation.”

Pieter-Jan Lateur

Mobility Advisor-Strategic Researcher

working for a Belgian national public transportation company

SPECIALISATIONS

1

Traffic Safety:

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.

2

Mobility Management:

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

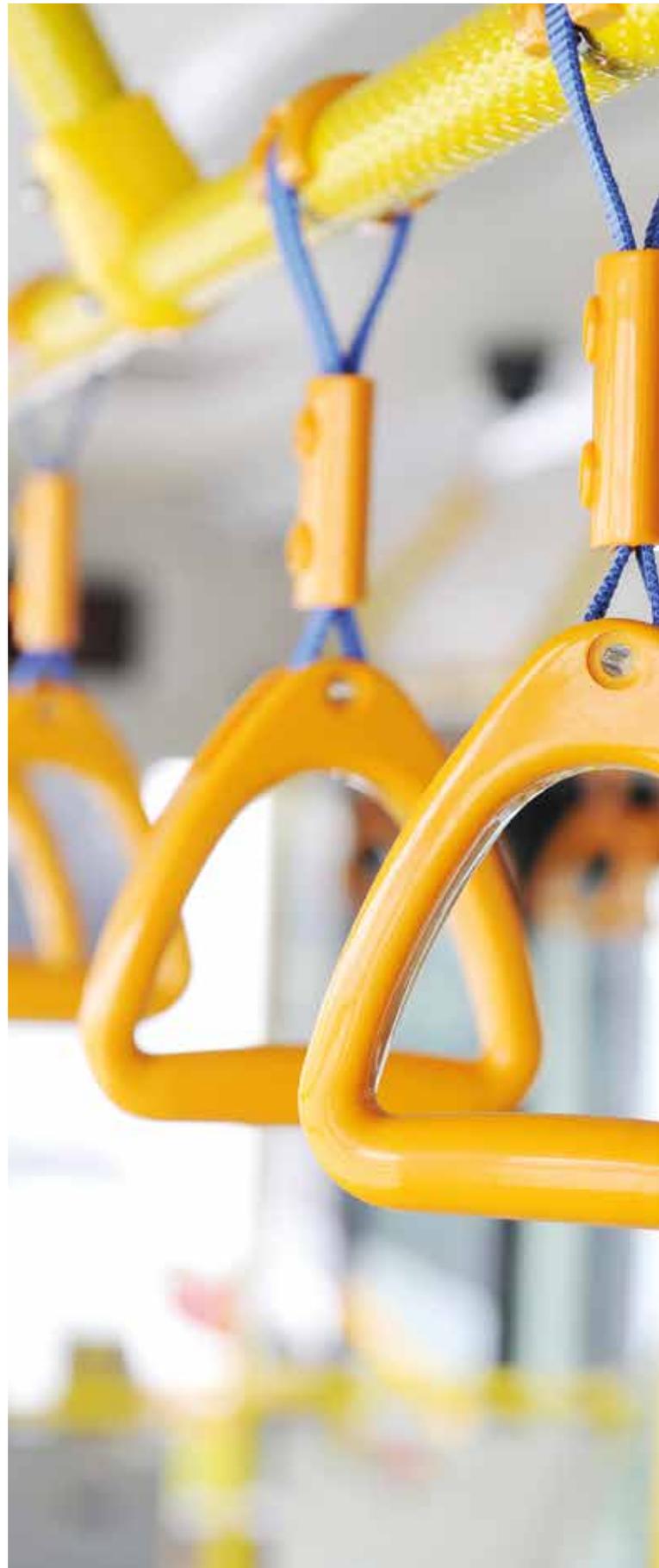
The Master of Transportation Sciences is a 2-year programme of 120 ECTS. Students with an academic bachelor or master degree other than Transportation Sciences, will have to do a short preparatory programme (18 ECTS).

MASTER'S PROGRAMME	ECTS
COMPULSORY COURSES: 48 ECTS	
Internship	18
Master's Thesis (part 1 + part 2)	30
DOMAIN SPECIFIC COURSES: BETWEEN 48 AND 72 ECTS	
Intelligent Transportation Systems	6
Microsimulation Models	6
Traffic Flows	6
Freight Transport	6
Environmental Economic Evaluation of Transportation Policy	6
Strategic Project Analysis	6
Management and Prediction of Travel Demand	6
Management of Transportation Companies	6
Traffic and Transportation Models	6
Analytical Skills for the Interpretation and Analysis of Travel Demand	6
Behavioural Influence	6
In-depth Crash Investigation	6
Traffic and Travel Behaviour	6
Road Safety Evaluation: Methods and Applications	6
Study Visit & International Topics	6
Current Topics in Transportation Sciences	6
LIST OF INTERDISCIPLINARY ELECTIVE COURSES: MAX. 24 ECTS	

TOTAL

"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



CAREER PROSPECTS

“The Master of Transportation Sciences at Hasselt University is the only one at European level able to provide such a multidisciplinary approach to transportation issues.”

Alessio Sitran, master student, Italy

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:

The diagram features a black silhouette of a person on the left, with a thought bubble above it containing the text 'EXAMPLES OF JOB:'. Below the person is a white arrow pointing down to a black silhouette of a person wearing a graduation cap. To the right of the graduate is a list of five job examples, each connected to the graduate by a white line that resembles a road or path. The background is a solid light green color.

- * **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

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.



IMPORTANT NOTE FOR NON-EEA STUDENTS:

When you have completed your online registration, it is required to also send a hard copy of legalised degree certificates and transcript of records to:

Hasselt University

Student Administration – International Affairs
Attn. Mrs. Leen Jorissen
Martelarenlaan 42, 3500 Hasselt, Belgium

The deadlines for application are:

NON-EEA students: 1 May; EEA-students: 1 September

TUITION FEE

The tuition fee varies on how many credits you take up. The tuition fee for the Master in Transportation Sciences amounts to approx. € 900 per academic year. Fees may be subject to an inflationary 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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www.uhasselt.be/Master-of-Transportation-Sciences