



university of  
 groningen

## For whom?

The highly selective admission procedure is open to students of the Faculty of Science and Engineering of the University of Groningen.

Talented, ambitious students from the following course programmes are welcome to apply:

- (Applied) Mathematics
- (Applied) Physics
- Artificial Intelligence
- Astronomy
- Biomedical Engineering
- Chemical Engineering
- Chemistry
- Computer Science
- Human-Machine Communication
- Industrial Engineering and Management
- Mechanical Engineering
- Molecular Biology and Biotechnology
- Other science studies with a clear technical component applicable to the HTSM sector.



### Key facts

Study workload: 20 ECTS  
 Programme start: Autumn  
 Duration: 3 Semester  
 Language: English  
 Classes: mostly outside regular course hours  
 Deadline for application:  
 September 15

## Selection criteria

- A Bachelor's degree by 1 September with good to excellent results, including a Bachelor's thesis marked above average.
- Good oral and written skills in English (TOEFL 580).
- Highly motivated toward the focus of the programme: multidisciplinary, innovative, high tech product development.
- Able to pair a great intellectual ability with technical skills and interests.
- Specific personal qualities (innovative, independent, creative, original, proactive and persevering).
- Motivated and able to collaborate with other (technical) disciplines in multidisciplinary teams.
- The desire to widen your knowledge beyond the borders of your own discipline and beyond technical and non-technical borders.



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 Honours College  
 Academy Building  
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 The Netherlands

## More information

More information about the programme and selection procedure is available on the following website:

[www.rug.nl/honours/htsm-masterprogramme](http://www.rug.nl/honours/htsm-masterprogramme)



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# High Tech Systems and Materials Master's Honours Programme

Excel together at the frontiers of knowledge



[www.rug.nl/honours/htsm-masterprogramme](http://www.rug.nl/honours/htsm-masterprogramme)



HIGH TECH SYSTEMS • DRACHTEN

## Excel together at the frontiers of knowledge

- Are you looking for an extra challenge on top of your Master's degree?
- Would you like to be trained by excellent scientists and optimize your chances on a high profile industrial or PhD position?
- Would you like to deepen your knowledge of your own field, yet also join forces with students from other (technical) disciplines?
- Are you up for challenging real-life product development assignments together with one of our industrial partners?

Then the HTSM Master's Honours Programme is just what you are looking for!

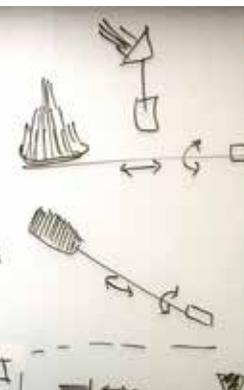
The University of Groningen – in cooperation with companies of the Innovatiecluster Drachten (like Philips Consumer Lifestyle, Astron, BD Kiestra, Perkin Elmer etc.) – offers talented, motivated students the opportunity to challenge themselves with this unique extra-curricular Master's Honours Programme.



Innovation is at the core of High Tech Systems and Materials. To be able to continuously innovate and improve products (and processes), the sector is in need of excellent scientists who are able to collaborate in multidisciplinary teams, who look beyond the borders of their own field, who are open-minded towards other disciplines and the outside world and who are prepared to go the extra mile every day.

### Industrial challenge:

The challenges that our industrial partners may offer you are multiple: from developing smart sensors to monitor product quality, to customizing new products, to creating innovative components for radio astronomy investigation. Pick your own challenge!



## About the Programme

### Masterclasses

Tailored masterclasses will help you gain (further) knowledge and understanding of subjects relevant to the industrial challenge.

Examples: innovation management, industrial design, multidisciplinary collaboration, characteristics and processing of plastics, metals, electronics and embedded software.

### Personal development

Hands on workshops will help you to optimize your team skills (how to communicate effectively, good decision-making) as well as how to optimize your creative abilities (how to think out-of-the-box and put theory into practice).

### Industrial challenge

After a preview into the current product development challenges of our industrial partners, you will form a team together with students from other disciplines, and collectively decide upon which challenge(s) to tackle.

### Product proposal

Smarter use of materials? Enhanced functionality or improved usability of an existing product? Or a new product concept all together? Whatever solution your team may invent, you need to convince a panel of experts of your idea and approach.

### Summer school

During a summer school, your team will manufacture, test and finalize the proposed and approved product solution on site at the industrial facilities.

### Masterwork

You demonstrate your ability to independently put into practice the acquired knowledge and skills through an individual, challenging product development assignment for a high tech industrial company of your own choosing.

## Student Experiences



As soon as I started my master's degree I realised that I would really like to do something next to it. During my bachelor's I had noticed that I missed a connection to industry. For that reason the HTSM Honours Master Programme appealed to me. The Programme has turned out to be a lot more than a simple a connection to industry. Every week there is a masterclass on a different subject and topics are covered that I had never before learned about at university.

Jessy Ceha, MSc Human-Machine Communication (HTSM Master student 2014-16), winner Avril McDonald Prize 2016

I decided to apply for the HTSM programme, because I wanted to get experience with real-life product development. If you are interested in product development in a real production environment, or want a challenge on top of your regular Master's programme, or want to develop and broaden your technical skills, talents and knowledge in a practical setting, the HTSM programme is capable of providing all of the above and I highly recommend applying for it!

Thomas Hoeksema, MSc Computing Science (HTSM Master student 2015-17), winner of the Aart Bosman Student Excellence Award

