Over the past decades products have become more and more complex; whether it is added functionality or tougher recycling demands. Logically the design of successful products has become increasingly complex as well; the master of Integrated Product Design (IPD) teaches how to bring these complex aspects together. Besides becoming more complex, products also have to perform better due to ever increasing user expectations. For this reason the curriculum specifically aims at teaching how to design ‘predictable product behaviour’.

The international product development arena is changing rapidly; products are becoming smarter, better integrated into systems and have to comply with increasingly stringent standards. Product development is moving from an interdisciplinary to a transdisciplinary occupation, becoming more knowledge intensive and therefore in need of continuous updates of tools and methods.

Programme
The IPD master’s programme focuses on teaching how to design user-centered innovative products and product service combinations, based on a balance between the interests of users, business and societal challenges. It covers the entire design process, starting from a design brief and ending with a complete product that is fit for mass or small series production. Thus the emphasis of the IPD master is on teaching conceptualisation and embodiment design, by applying systematic state-of-the-art theories and methodologies, and by integrating user, technology and business aspects. The identity of the IPD master’s programme is determined by the coherent integration of all these aspects to come to a successful new product proposal; this makes the IPD master’s programme challenging, exciting and unique.

The IPD master’s programme provides an integrated approach to the disciplines involved: advanced studies in innovative design theory and methods, aesthetics, ergonomics, engineering, and sustainability. The IPD curriculum includes multidisciplinary applied research on innovative product development embedded in its product design projects.
Curriculum Integrated Product Design

The IPD master’s programme can be started either in the autumn or in the spring semester. The starting date determines the order in which courses are taken. In the autumn semester the programme focuses on the generation of concepts, while in the spring semester the focus is on embodiment design. The second year starts with a semester in which students can create a personal focus. The second year ends with establishing, defining and completing the individual graduation project.

### Project

<table>
<thead>
<tr>
<th>Master specific courses</th>
<th>Shared master courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 EC = 28 hrs study, according to the European Credit Transfer System (ECTS)</td>
<td>One academic year = 60 EC  Total amount of credit MSc programme = 120 EC</td>
</tr>
</tbody>
</table>

For more information on all courses: [www.studyguide.tudelft.nl](http://www.studyguide.tudelft.nl)

### Specialisations

#### Shape your master

In this curriculum, 30 EC is reserved for electives. This provides the students freedom and enables them to shape their personal programme. Students can pursue their professional interests and ambitions with a personalised set of different courses.

- **Areas of expertise:**
  - Applied Ergonomics Exploration
  - Design, Culture and Society

- **Areas of expertise:**
  - Applied Ergonomics Feasibility
  - Product Experience

Students who want to broaden their learning can take master’s courses at other faculties and universities, both in the Netherlands and abroad.

- **Areas of expertise:**
  - Applied Ergonomics Exploration
  - Design, Culture and Society
  - Technology for Concept Design
  - Product Communication and Presentation

- **Areas of expertise:**
  - Applied Ergonomics Feasibility
  - Product Experience
  - Smart Systems and Technologies
  - Sustainable Design Engineering
  - Advanced Design Enablers

For those students who want to increase the depth of their development as an industrial design engineer, IDE offers more than 50 different courses. This includes courses from the other IDE master curricula.

- **Areas of expertise:**
  - Applied Ergonomics Exploration
  - Design, Culture and Society
  - Technology for Concept Design
  - Product Communication and Presentation

- **Areas of expertise:**
  - Applied Ergonomics Feasibility
  - Product Experience
  - Smart Systems and Technologies
  - Sustainable Design Engineering
  - Advanced Design Enablers

Students specialising in Medisign will receive an annotation on their diploma supplement.

### Student Janne de Hoop

The Netherlands

"After my bachelor’s in Delft, I decided to continue my studies there, and to take the master’s in Integrated Product Design (IPD), said to be the most technical of the three master programmes offered at the faculty of Industrial Design Engineering, but there is much more to it than that. The word ‘integrated’ is actually the key, but it could also mean everything. So what do you integrate while studying this master’s? To me, the integration is in all the different subjects combined. During the two main courses of IPD, ACD and AED, all kinds of subjects are covered: ergonomics, cultural studies, simulations in SolidWorks, electronics, thermodynamics, presentation techniques and a lot of information on how to combine user research in your design project. The thing that I find most interesting, is puzzle-solving. First, finding out what the target group needs, then coming up with ideas and finally putting everything together and verifying these ideas; both from the user point of view and from the manufacturing point of view. Although it is always really scary to show your ideas to the end user, I really love seeing how happy they are when they see my solution to their problem."

---

<table>
<thead>
<tr>
<th>First year 60 EC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
</tr>
<tr>
<td>Q1</td>
</tr>
<tr>
<td>IDE Academy</td>
</tr>
<tr>
<td>Manage your Master</td>
</tr>
<tr>
<td>Managing Product Innovation</td>
</tr>
<tr>
<td>Advanced Concept Design</td>
</tr>
<tr>
<td>Areas of expertise:</td>
</tr>
<tr>
<td>• Applied Ergonomics Exploration</td>
</tr>
<tr>
<td>• Design, Culture and Society</td>
</tr>
<tr>
<td>Advanced Embodiment Design</td>
</tr>
<tr>
<td>Areas of expertise:</td>
</tr>
<tr>
<td>• Applied Ergonomics Feasibility</td>
</tr>
<tr>
<td>• Product Experience</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second year 60 EC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 3</td>
</tr>
<tr>
<td>Q1</td>
</tr>
<tr>
<td>Semester for creating personal focus</td>
</tr>
<tr>
<td>Semester 4</td>
</tr>
<tr>
<td>Q3</td>
</tr>
<tr>
<td>Graduation Project</td>
</tr>
</tbody>
</table>

### Project

#### Project

<table>
<thead>
<tr>
<th>Master specific courses</th>
<th>Shared master courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 EC = 28 hrs study, according to the European Credit Transfer System (ECTS)</td>
<td>One academic year = 60 EC  Total amount of credit MSc programme = 120 EC</td>
</tr>
</tbody>
</table>

For more information on all courses: [www.studyguide.tudelft.nl](http://www.studyguide.tudelft.nl)
Examples of graduation projects

Thermal optimisation of competitive sailing gear
This project consisted of both research and design to improve the thermal comfort of sailing gear for the Dutch Olympic sailing team. A simulation model is made to evaluate the effect of a sailing suit on the body’s thermal balance during a race.

The Micro Greenhouse
This project consists of the development of a fully automated, modular and scalable urban greenhouse which focuses on the growth of different types of crops at home, at schools or universities and in restaurants or canteens.

Design of a user-friendly respiratory mask for children
Inspired by the gathered insights through user research and understanding of the context, a complete set of components for a more comfortable respiratory mask for various children in the age of 1-6, covering both physical and mental aspects, was developed.

Career prospects
An integrated design approach is becoming increasingly important in the globalised business environment where graduates will find employment. Our graduates are able to pursue their careers in a wide range of positions, for example as industrial designers, product engineers, product managers, quality assurance managers, sales engineers and packaging designers. The IPD programme results in a unique qualification in industrial research and development, offering career opportunities in business as well as in university (applied) research and education.

Alumnus Amit Gudahde
India

“While pursuing my bachelor’s in India (IIT Kanpur), my interest in the field of product design led to my applying to the IPD master’s programme at TU Delft. For the last two and a half years, I’ve been working as a design engineer for TU Delft’s spin-off venture Twilight BV, based in Groningen and Delft, working towards developing intelligent outdoor street lighting solutions to make the lighting infrastructure a more friendly, economical, efficient and sustainable ecosystem. My key responsibilities involved supporting and coordinating the complete product development process: system design, 3D modelling, plastics design, product certification and coordination with various design and production partners. The skill set acquired during my master’s in Integrated Product Design provided me with a perfect blend to contribute towards making this venture a successful one.

Last month, I moved back to Delhi to work as head of product design for a very young start-up venture, WonderBoxx, working towards developing educational non-digital products for kids. My role involves coordinating the overall design of the end products heading out. A new venture, new areas where I can learn and contribute!

I totally cherish the two years spent at the faculty of Industrial Design Engineering at TU Delft. It has given me a great platform to self-explore, get exposure into how design affects our everyday lives and is an integral part of our everyday lives. I have learned to better appreciate the importance of the user in the whole process and I have come to adopt a more practical approach towards problem solving. Besides that, I have learned from fellow designers and academics from across the globe, and more importantly, I have made wonderful lifelong friends!”
Admission requirements and application procedures

Dutch university BSc degree
If you hold a BSc degree of Industrial Design Engineering from Delft University of Technology, Eindhoven University of Technology or University of Twente, you will be admitted directly into the programme. If the master’s programme does not follow directly on from your undergraduate programme, you will be required to take additional courses in a so-called bridging programme. For more details and to see which master’s programmes are open on completion of your BSc degree at a Dutch university, go to: www.io.tudelft.nl/schakelen-naar-IO.

If your degree is not listed here you will not be admitted.
The deadline for application is 30 November.
Students who are accepted can register before 1 February on:
www.tudelft.studielink.nl.

Dutch higher education BSc degree
To start a master’s programme with a hbo BSc degree, you will first need to check the relevance of your degree at: www.io.tudelft.nl/schakelen-naar-IO.

At this website you will also find information about the additional admission requirements, the registration procedures, and the registration deadlines. If your degree is not listed, or if you do not meet the additional admission requirements, your application will not be taken into consideration.
The deadline for application is 30 November.
Students who are accepted can register before 1 February on: www.tudelft.studielink.nl.

For more details consult the brochure: Van HBO naar Industrieel Ontwerpen or visit the webpage: www.io.tudelft.nl/schakelen-naar-IO.

International degree
To be considered for admission to a master’s programme, applicants with an international BSc degree must make a formal application for admission.
For the starting moment in September the application period starts in October and closes on 1 April. Please note that your complete application should reach TU Delft before 1 December, should you want to apply for a TU Delft Excellence scholarship.
For the starting moment in February the application period starts in August and closes on 1 October.

To start a master application, please complete the online application and pay the (refundable) application fee of € 100.
The required application documents need to be uploaded digitally through the upload portal. Please visit the webpage for admission requirements, deadlines, application procedures and contact information: www.ipd.msc.tudelft.nl.

March 2017