

MSc Programme

Integrated Product Design (IPD), Design for Interaction (DfI) and Strategic Product Design (SPD)

Specialisation

## Advanced Automotive Design



Over the years, automotive design has been driven primarily by knowledge derived from experience and guided by intuition. But to go beyond solely aesthetically pleasing designs and to come up with new automotive designs whose existence can be justified over the long term, the automotive designer needs to rely not just on intuition but on the application of a scientific managerial framework as well. If the automotive concepts are to be meaningful for users and society in the future, the designer must take psychological, cultural and technological principles into consideration in order to arrive at an integrated vision that addresses user concerns and expectations.

Advanced Automotive Design is a specialisation that focuses on the automotive design process from three strategic perspectives, related to the three MSc programmes from within which it is offered:

- Business strategy, which focuses on the interaction between the automotive company and its product. What kind of product planning strategy, technology strategy, form strategy and manufacturing processes best respond to automotive design requirements over the long term?
- Behavioural strategy, which deals with identifying user behaviour the designer wants to encourage and facilitate with respect to mobility in the future, and which kind of automotive product will accomplish this.
- Product strategy, which examines the interaction between the client and the automotive company. How can brand identities evolve over time and remain meaningful for clients? How can a brand portfolio be designed and managed to generate strategic advantage.

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### *Automotive concepts for the future*

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The increasing complexity of automotive products requires the designer to understand and apply these strategic principles as a whole. Delft's unique automotive design process, developed in research and practice, provides a coherent framework beginning with 'vision development' and leading to new and appropriate automotive concepts and products that express the underlying idea in one coherent automotive design - a balance among three essential considerations: the package (ergonomics), the styling (aesthetics) and the configuration (structure and mechanics).

### **The curriculum**

The Automotive specialisation requires a minimum of 9 EC from the Automotive electives list, an automotive orientation in at least one regular master project,

and a relevant graduation project. Students may also participate in research projects such as c,mm,n.

Automotive electives:

- **Automotive Design** covers a vast range of automotive design topics including the history of car development and design, automotive engineering, vehicle dynamics, aerodynamics, aesthetics and future cultural, social and technological developments. Students gain insight into the effects that these various topics have on the expression of the automotive concept and develop specific automotive design skills.
- **Strategic Automotive** examines the automotive design management process and provides insight into the relationship and interaction between behavioural strategy, business strategy and product strategy. Drawing on business models, branding and brand portfolios are addressed in the widest possible context.
- **Automotive Sketching** covers automotive drawing and rendering techniques, and introduces concepts such as Computer Aided Design and package design, including consideration for how they facilitate the design process.
- **Automotive 3D** deals with the translation of an automotive design into 3D in clay modelling workshops. Students gain insight into how surfaces, graphics, treatments and proportions contribute to the creation of the desired character of an automotive concept or product.
- **AutoStudio®** teaches the application of an automotive CAID (computer-aided industrial design) system throughout the automotive design process, far beyond the mere understanding of its interface. The focus is on embedding the CAID system into the styling process in what then becomes a natural synthesis of new design methodologies and conventional crafts.

### Career prospects

Graduates of the programme are equipped to play leading roles in the design of future automotive concepts, products and brand strategies. They move

into positions in product development, design and design management, and product technology, as well as research and education, or use their expertise in commercial functions or as consultants. Graduates have found work at leading automotive firms such as BMW, Renault, Pininfarina, Volvo, Mercedes and Audi in positions such as designers and design directors.

### Admission requirements

- Graduates with a BSc degree from a Dutch University of Applied Sciences (HBO): Applicants holding a relevant HBO degree such as Industrial Product Design (IPO), Product Design and Engineering, Human Technology, Mechanical Engineering, Human Movement Technology, and Architecture may be admitted after following a bridging programme. All candidates must make a formal application for admission. For more information, or if you are not sure whether your degree qualifies you for admission, please contact one of the academic counselors listed below.
- Dutch university graduates: Applicants with a BSc in Industrial Design Engineering from TU Delft, Eindhoven University of Technology, or Twente University will be admitted to the Master's programme without conditions. Applicants with another BSc from a Dutch university may be admitted to the Master's programme, depending on previous training and competence. Students will be required to enrol in a bridging programme. Required entry level skills include the following: Product Design, Information Design, Interaction Design, Multimedia Design, Basic Research skills and knowledge of technical product development aspects. If you wish to apply, or if you are not sure whether your degree qualifies you for admission, please contact one of the academic counselors listed below.
- International applicants: Applicants from non- Dutch universities must make a formal application for admission. Please check [www.ipd.msc.tudelft.nl](http://www.ipd.msc.tudelft.nl), [www.dfi.msc.tudelft.nl](http://www.dfi.msc.tudelft.nl) or [www.spd.msc.tudelft.nl](http://www.spd.msc.tudelft.nl) for information about admission requirements, the application procedure and application deadlines. For information please contact the international office of IDE.

**For further information:** [www.ipd.msc.tudelft.nl](http://www.ipd.msc.tudelft.nl) – [www.dfi.msc.tudelft.nl](http://www.dfi.msc.tudelft.nl) – [www.spd.msc.tudelft.nl](http://www.spd.msc.tudelft.nl)

#### Admission and application: national applicants

Ms J.C. Thieme or Mr J.H. Wiltjer, Academic Counselors

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#### Admission and application: international applicants

International Office IDE

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#### Further information on course content

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