Teaching production technology: doing more with less

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TU Delft

Delft University of Technology

Industrial Design Engineering
is everywhere

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The Netherlands

- 16 Mln inhabitants
- Capital: Amsterdam
- Gateway to Europe
- Multicultural society
- English widely spoken
- 3 Technical Universities

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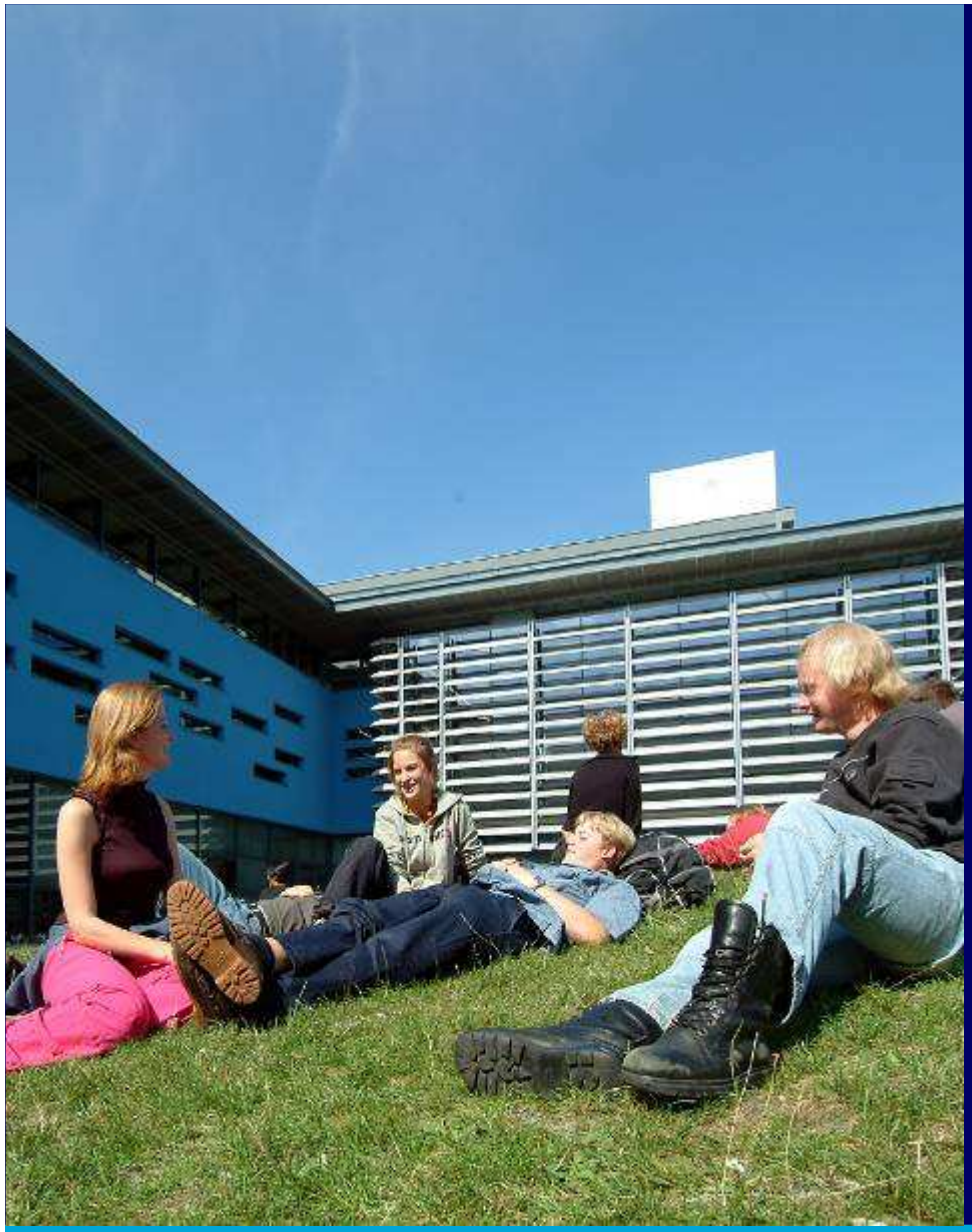

The faculty of **Industrial Design Engineering**

- Founded in 1969
- Largest university-based design course worldwide
- 1650 students, 56 PhD students
- 200 scientific staff
- Over 2700 alumni
- 3 departments
- 1 BSc programme
- 3 MSc programmes

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The problem

- 60% of all product development projects encounter delays in production (15% requiring full redesign)
- DFMA tools are OK, but are not used well enough
- Too many IDE students cannot handle production-issues to satisfaction: just facts, no insight
- Conjecture: industrial production must be taught better (less phenomenological, more attractive)

Our new production course

- 10 weeks, 210 study hours
- Mix of technology and design
- Addresses knowledge, insight, skills and attitude
- Mix of different teaching formats:
  - plenary lectures
  - masterclasses
  - specialisation project (with industry)
  - product analysis

> We cover fewer technologies, but in greater depth

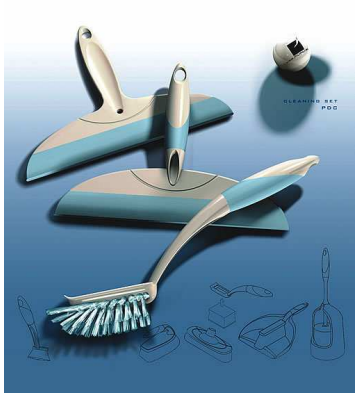
Our new production course











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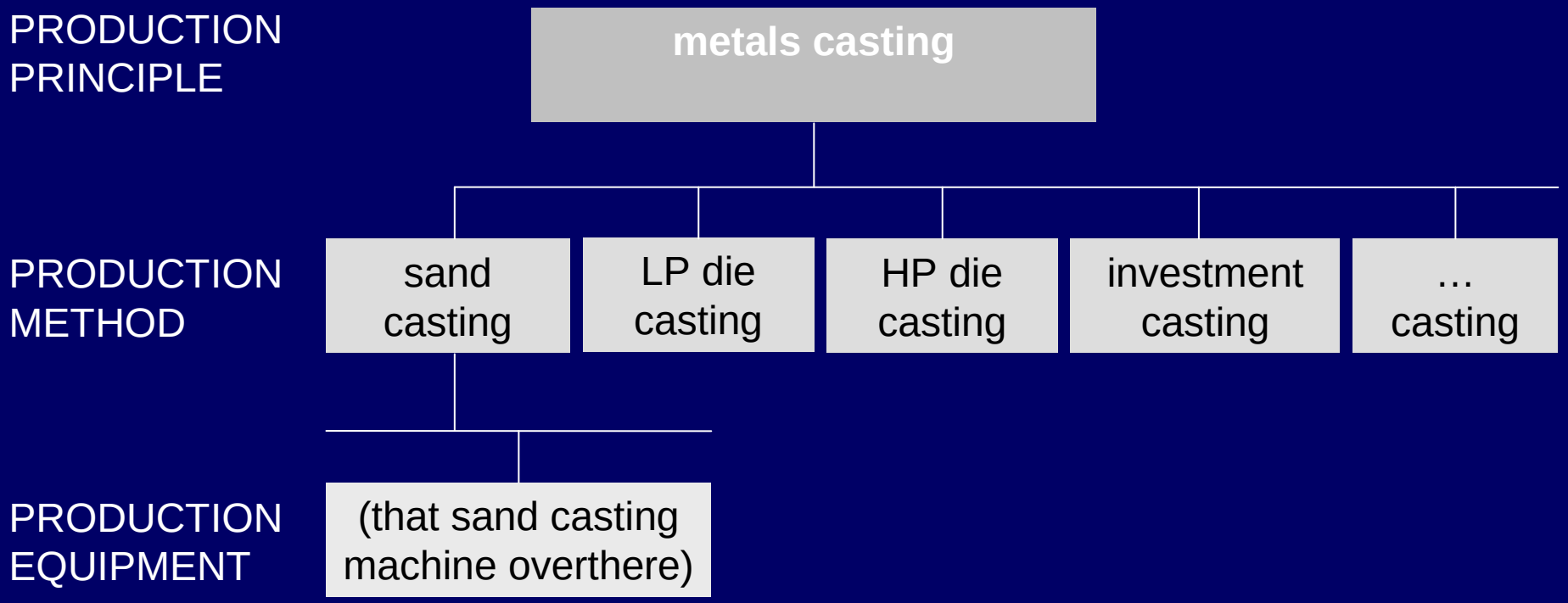
Our new production course



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Our new production course

- Course to start in week 46 this year
- Findings from small-scale trials positive

> We'll keep you posted!

(any ideas on how to monitor the effects of this course?)

Discussion item: local – global

"A boost in the number of industrial designers will unlock a number of benefits for South Africa, including greater beneficiation and downstream value addition. The development of South Africa's product design abilities will increase the **use of local materials** in new products. It will also enable the country to progress from the production of primary processed products toward secondary value-added products. [..] DESIGNation has been developed to align to the national system of innovation to contribute to bridging the 'innovation chasm' in South Africa."

(retrieved from www.engineeringnews.co.za on Sep 13th)

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Answers?

October 23, 2007

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