TUHH
Hamburg University of Technology

Neue Arbeit und Ausbildungskonzepte international
Erfahrungen aus Finnland, Norwegen und Deutschland

14. Bremer Schifffahrtskongress

Sören Ehlers

Ship Structural Design & Analysis

Maritime Systeme

Background

- **Sören Ehlers** is the head of the institute for ship structural design and analysis and a full professor for design and analysis of ships and offshore structures at the **Hamburg** University of Technology (6+ years)
- Teaching experience from full professorship in **Norway** (NTNU) and Adjunct Professorship (Høgskolen Ålesund, now NTNU Ålesund) (7 years)
- Teaching experience from post-doc and post-graduate time in **Finland** (Helsinki University of Technology, TKK, Aalto University) (8.5 years)
- Teaching experience from **various international courses** (world-wide) and with international students

Observations

- **Germany**: rather fundamentally oriented and self-motivated students. Willingness to learn and trust into the teacher is given. Ad-hoc changes of the contents following different interests or recent developments are appreciated. Large degree off flexibility and ability to take steps beyond the minimum requirements. Positive and fruitful teaching environment. Easy to get them engaged.
- **Norway**: somewhat application oriented students and less self-motivated. More of a schooling system with less flexibility. Course contents and requirements must be defined prior to the course exactly and any deviation will cause disputes and claims that too much is required compared with the credit points given. Very demanding students, which require solid guidance rather then independent problem-based learning. Tendency to complain, require course material and alike.

Observations

- **Finland**: rather fundamentally oriented and basically well motivated students. Often difficult to get them engaged in discussions and to obtain feedback, sometimes appear non-interested and often do not even bring pen and paper to the lectures. Require course material.
- **International**: Possibility that they learned to simply repeat what was taught rather then to reflect it and understand the background of the contents. Often struggle for that reason when joining us in Hamburg.

Reputation

- **Germany**: low-tech, possibly unemployed, work at ship yards with poor perspectives
- **Norway**: high-tech, well paid due to oil and gas and transition to ocean space, top high school students chose to study (requirements comparable to medical studies in Germany). Early activities nation-wide to recruited future students and colleagues.
- **Finland**: Strong industry reputation, somewhat less visible at the technical university,..
- **International**: reputation is usually very good and the high-tech appeal is more visible

Facts and conclusions

- General trend: decreasing amount of students in mechanical engineering and thus marine technology / naval architecture: for 2020 at TUHH we have
  - new Master students: 8
  - new Bachelor students: 18
  - total registered students: 71
- Especially for Marine Technology I feel that we fail to communicate the diversity and cutting-edge technology we deal with. Often the one associates naval architecture with steel and iron work of heavy labor at a yard alone. Naturally we attract those, who favor the maritime world, but this is not enough.
- On the other hand side, we all know how well our industry works in general and I do not know a single unemployed graduate from Marine Technology

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