DTU Seminar for Teaching & Learning

April 21 2017

Program

9.00	**Introduction** by **Dean Philip J. Binning**
9.10	**Key note** (part 1): **Experiments in learning design: Creating space for creativity and continuity in design education** by **Dr. Tim Stratford**, University of Edinburgh
10	Workshop: **Creativity, complexity and compromise in design**
11.15	**Key note** (part 2): **Challenges to open-ended guided learning** by **Dr. Tim Stratford**
11.40	**Implementation of design thinking in DTU programs and courses** ➤ **Group discussions** ➤ **Summary in plenum** by Philip J. Binning
12.30	*Sandwiches, networking*
13.00	**Seminar closing**

Background

The vision of cdio is

"to educate students who understand how to **C**onceive - **D**esign - **I**mplement - **O**perate complex value-added engineering systems in a modern team-based engineering environment"
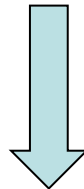
Or "to educate...

Engineers who can engineer!"

Background

Core engineering competency:

To be able to create innovative solutions to problems that have not been tackled before

All engineering students should learn to
- analyse problems and their context
- conceive and design solutions addressing complex problems

How?

How do the students learn to design?

- Individual courses and projects
- Coordination across a study program
    – progression through the program

Various types of design tasks
- Overall solution design ("complex design")
- Detailed technical design (calculations etc.)

Room for improvement?

We can always improve!

- e.g. by getting inspiration from colleagues at other universities.

Today:

Experiences from the School of Engineering, University of Edinburgh

"**Creating space for creativity and continuity in design education**"

By *Dr. Tom Stratford*

$$f(x+\Delta x)=\sum_{i=0}^{\infty}\frac{(\Delta x)^i}{i!}f^{(i)}(x)$$

Δ $\int_a^b$ ε Θ $\sqrt{17}$ $+$ Ω $\int$ δ $e^{i\pi}=$

∞ $=$ $\{2.7182818284$

χ^2 $\sum$ $!$ $\gg$ $,$