# t.FTH3 - Fluid- und Thermodynamik 3

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| **Person responsible for the course:** | Egon Lang, lang |
| **Credits:** | 4 |
| **Valid for:** | 2010/2011 |
| **Last saved:** | 03.09.2010 09:58 |

**Learning objectives:**

Application of basic equations of heat transfer

Understanding of similarity and application of dimensionless parameters

Analysis and design of heat exchangers

**Course content:**

Lecture:

- Fundamentals of heat transfer

- steady state and transient heat conduction in 2D

- convective heat transfer

- Radiation processes for technical applications

- Analysis and design of heat exchangers with phase change


Practice:

- Analysis of the heating-up process of a stirred vessel

- Analysis of free convection and heat transfer on a vertical wall

- Analysis of a steam condensor

- Analysis of a heat exchanger

**Previous knowledge:**

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**Teaching method:**

| Type of lesson: | Number of lessons per week: |
|---|---|
| Lecture | 14x3L |
| Tutorial/Practicum | 4x3.5L |
| Group teaching | |
| Block instruction | |
| Seminar | |

**Assessment:**

According to the table or as specified in writing by the lecture at the beginning of the semester!

| Number | Type | Weighting |
|---|---|---|
| 1 | End of term exam | 60% |
| 2 | Exam during the semester | 2*20% |
| 4 | practicum report(s) | |

**Language of instruction:**

Deutsch

**Instruction material:**

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**Comments:**

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