Bring ideas to life
VIA University College

DES M1
Design of Energy Systems

Lecture 1
Course intro

- Content
- Studynet
- Study activities
- Course work and assignments
- Evaluation

Purpose

” The student will obtain

knowledge and calculation practice of refrigeration and heat pump systems so he/she will be able to design an efficient, environmentally friendly energy plant.”

competences to:

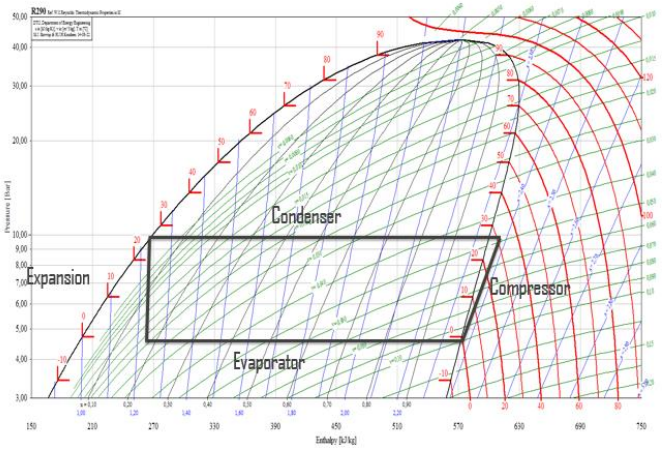
- **communicate** about designs of different types of energy plants
- **design** simple energy plants in a **methodical way** and more complex systems in **co-operation** with energy engineers”

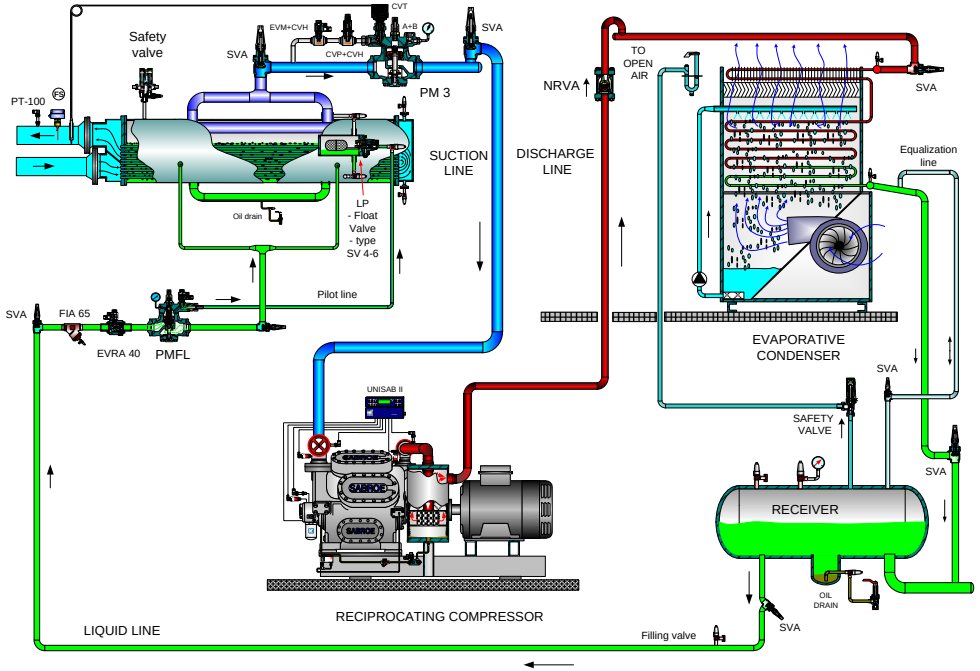
Your expectations to the course

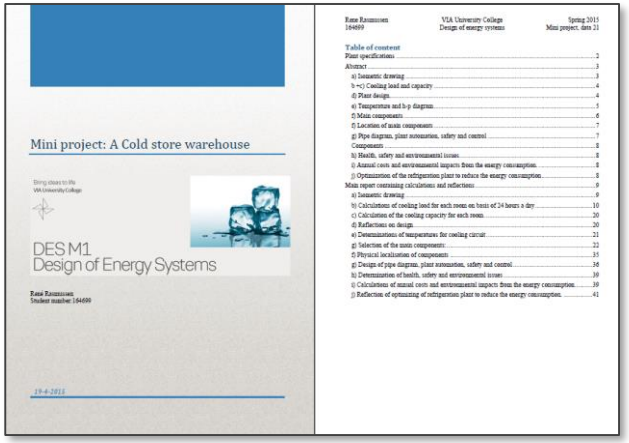
- Make a group of 3 students
- Start with a short introduction to each other.
  - Who are you and where are you from?
  - What are you studying and how many semester have you fullfilled?
- Discuss your expectations to this course and write down 3.
- Do a short presentation of the group and your expectation to the class.

Topics we will go through

Log P,h diagram







Mini project: A Cold store warehouse

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Table of content

How you will learn

Before class:

- Read presentations from last class, finalize exercises
- Read textbook and compendium, solve exercises and assignments. Solve quizzes on Studynet

At class:

- Questions from students
- Short lectures on basic concepts. Exercises in groups or individually
- Workshops on assignment problems

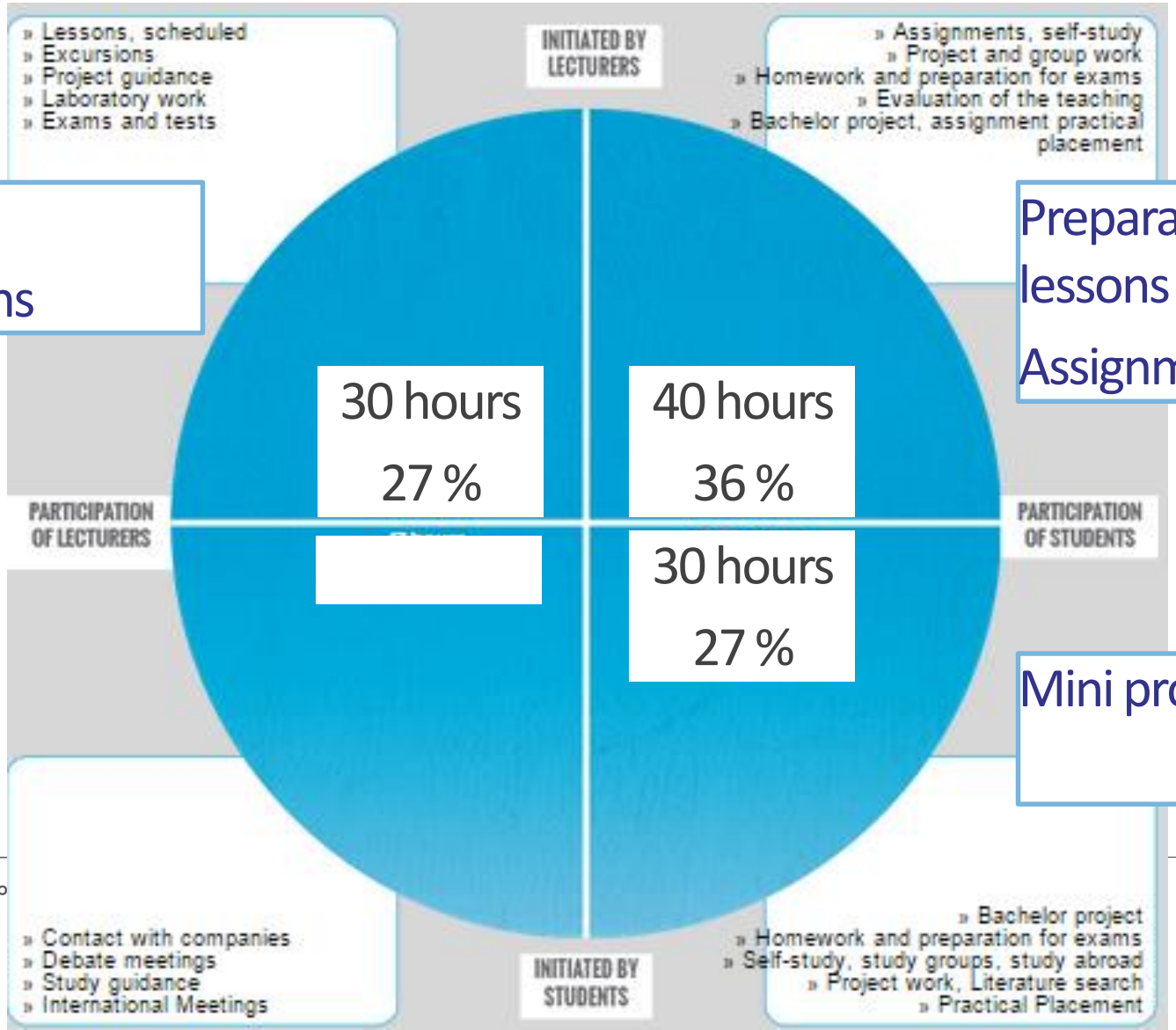
Exercises/assignments/mini project:

- Solving refrigeration problems from real life

Company visit:

- Visit to a compressor manufacturing company or similar

Study activity model – DES M1



Lessons

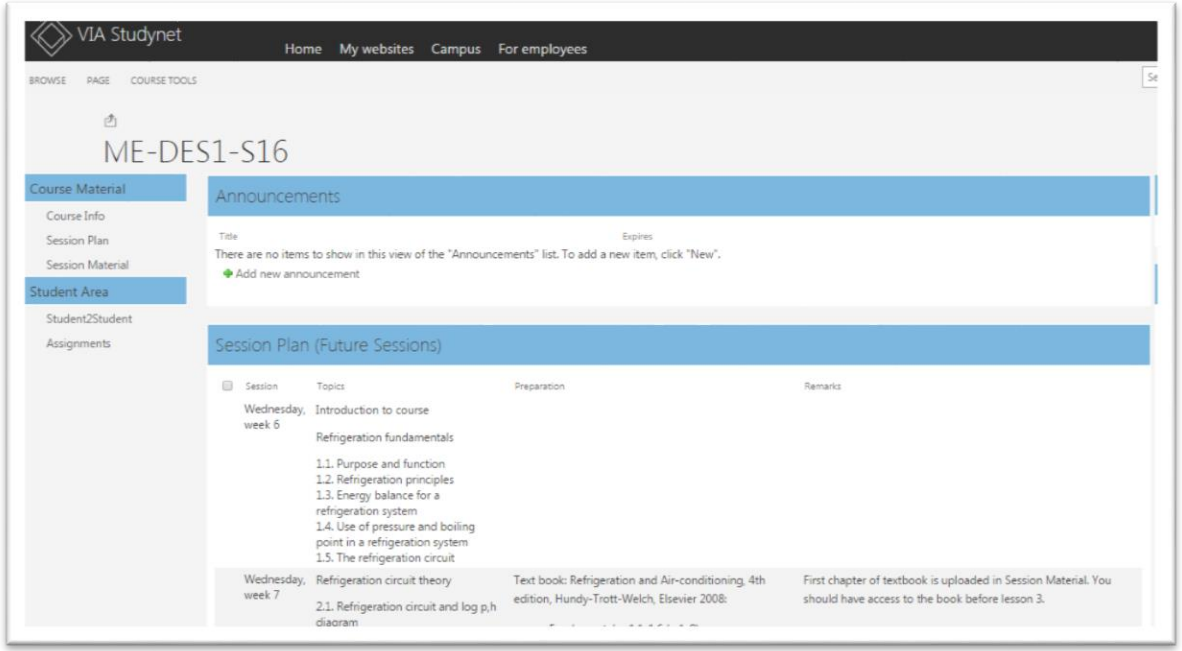
Excursions

Preparation for lessons

Assignments

Mini project

Studynet



Course info:

- Course description
- Lecture plan

Session plan:

- Home work
- Information for next lesson

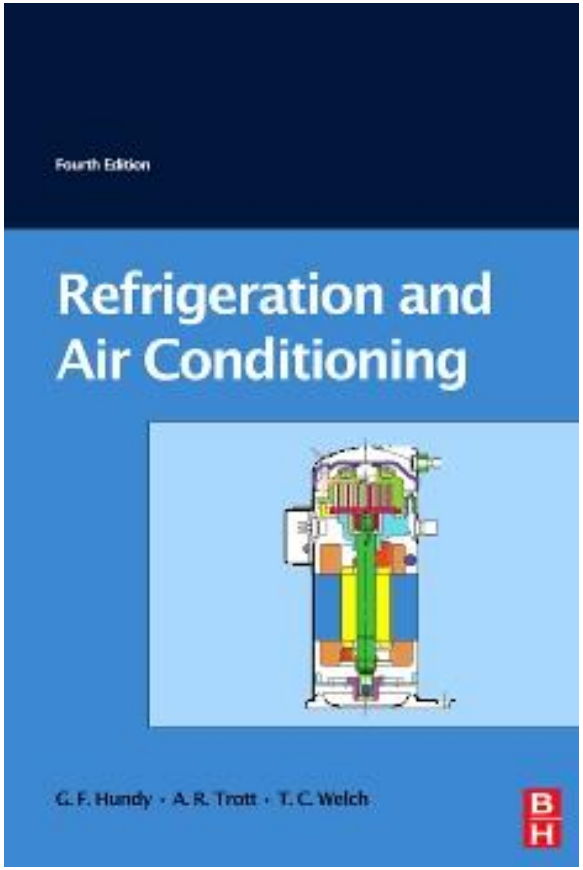
Session materials:

- Compendium and other litterature and material (continually)
- Assignments (continually)

Assignments:

- All mandatory assignments to be handed in on Studynet!

Literature



Textbook:

- Book: Via Book Shop
- PDF: Elsevier Store
- First chapters on Studynet

Compendium: Refrigeration, Theory and practice

- Studynet

Collection of exercises 1

- Studynet or Via Book Shop

Teaching evaluation – your opinion matters

Evaluation is considered an important and integral part of the education process at VIA Engineering

Midterm evaluation (studynet – every semester)

- Purpose: possible adjustment and improvement of education in relation to the actual teaching

Final evaluation (Survey Exact – every third time the course is held)

- Purpose:
  - Evaluate whether the study programme has lived up to the learning objectives
  - Examine the extent to which the individual study activities has benefited the students' learning outcomes

How you will be evaluated
Examination instructions for DES M1

From Course Description:

- Oral examination.
- External censor.
- Approximately 20 minutes based on one or several written task(s) solved during the course and questions in the subject matter.
- There will be given a mark from the ECTS scale (for fulltime students from the corresponding 7 step scale).

Code of conduct

- Regular and punctual class attendance is expected
  - Door is closed when the lesson starts
  - If you are late you can enter the class in a break
- Laptops are for notetaking and other professional matters. Private communication during lessons is of course not allowed
- Active class participation is an important element in the learning process
- Keep yourself updated on Studynet and VIA mail

Contact

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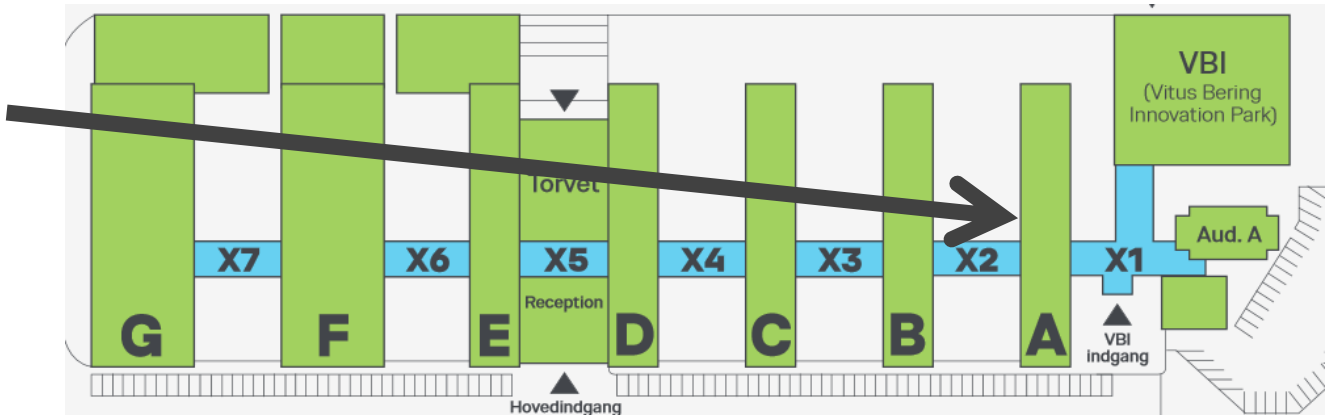

You are always welcome to look us up at our office - if we aren't there, please send us an email ☺