

CHEM-C1220 Principles of General and Organic Chemistry

Course kickoff



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School of Chemical
Engineering

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Objectives for this session

After this session you should be able to:

- ✓ **Understand the objectives of the course**
- ✓ **Understand how your learning process is supported during the course**
- ✓ **Know how the course is assessed**
- ✓ **Know where to find important information about the course**
- ✓ **Know how to: submit exercises, choose your lab group, submit lab report**
- ✓ **Have the first use of attendance, presemio, flinga and kahoot**

Think-pair-share

Your conception on chemistry: what is chemistry about?

- ✓ What is chemistry actually studying?
- ✓ How can chemistry help me understand the world around us?

1. Think about these questions on your own for 1 minute

2. Discuss with the person next to you for 2-3 minutes

3. Share your thoughts on <https://presemo.aalto.fi/c1220>



Learning objectives of CHEM-C1220

After completing the course you should be able to

explain the atomic structure and the basic principles of periodic table

describe different types of chemical bonds in compounds

explain the significance of bonding for the structure and properties of matter

understand how the structure of a molecule is connected to its reactivity

write reaction equations and know the basics of chemical equilibrium

work safely in laboratory and document your lab work

Learning process:

Flipped classroom approach

Lessons

- In MyCourses
- Individually
- Acquire information

Out of class

In class

Learning sessions

- Onsite
- Individually and in group
- Digest information

Exercises

- In MyCourses
- Individually
- Deepen understanding

Out of class

In class

Exercise sessions

- Onsite
- Peer and instructor support
- Further refine comprehension

Lab Exercise (in-lab work)



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Poll on Flipped classroom

With your mobile go to kahoot.it

and vote anonymously on your honest feelings about flipped classroom

Lessons (10%)

Course book *Chemistry: A Molecular Approach (5th ed.)* by Nivaldo J. Tro is available as e-book

Ten topical Lessons guide you through book chapters and other content

Lesson questions are graded

- Specified minimum number of questions required to get any points from Lesson
- Lesson points = (correct responses)/(specified minimum)
- Max 1.0 course points per Lesson

Learning sessions (10%)

Every learning session relates to a Lesson

Workout on Lesson content

Learning session $\neq$ lecture, but a condensate on the topic, duration 75 mins

After each session a quiz will open, about the session topics and will be open until noon the following day. **Up to 1.0 course points per session quiz**

Max 10 course points in total available

Exercises (20%)

- **Problems about topics of two Lessons at a time**
- **Exercise sets open on Friday morning**
 - Close Sunday 23:59 the following week
- **Students submit answers individually in MyCourses**
- **5 rounds, max 4 course points per round = 20 course points**

- **Exercise sessions on Thursdays at 12.15-14 in C-sali**
 - Support from peers and teacher available

*Lab work (10%)

Lab: Synthesis of Biodiesel (in-lab) **max 10 course points**

Important! Complete online Lab safety course CHEM-E0140 as soon as possible = your access pass to laboratory

Group choice in MyCourses to book your time and workpair

Pre-lab assignment in MyCourses to prep for the lab (**4.0 points**)

- Have this done and be ready to show the record at lab entrance

Lab coats & goggles will be provided

After lab → Submit **lab report (6.0 points)** = short abstract

Chemistry quiz

Go to kahoot.it for Chemistry quiz

7 questions

1 minute to respond

1 of the choices is correct

Use your real or imaginary name, your choice!

Course assessment (100 points)

Lessons: max 10 points

Learning sessions (MyCourses quizzes) max 10 points

Exercises: max 20 points

***Lab work: max 10 points**

***Exam: max 50 points, threshold 10 points to pass**

Overall threshold is 40 course points to pass

Course assessment (100 points)

Course grading (1-5):

89.00-100 course points = 5

80.00-88.99 course points = 4

70.00-79.99 course points = 3

55.00-69.99 course points = 2

40.00-54.99 course points = 1

<40.00 course points = F