

WELCOME!

MUO-E3000 - New Materials and Means of Production
25.02.2019 - 04.04.2019

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LAB ACCESS CRITERIA

- Register in Lab safety course

CHEM-E0140 Laboratory Safety Course

- This is an online course, which consists of a virtual lab space + digital exam, covering the basic lab safety issues.
- The students will not be granted access to the ChemArts Laboratories or the ABio laboratories unless this course is completed

LAB ACCESS SCHEDULE

WEEK 1

Monday - Thursday (25.02 - 28.02)
07:45 -18:00

Friday (01.03)
No Lab access

WEEK 2

Monday - Thursday (04.03 - 07.03)
07:45 -18:00

Friday (08.03)
No Lab access

WEEK 3

Monday - Thursday (11.03 - 14.03)
07:45 -18:00

Friday (05.03)
No Lab access

WEEK 4

Monday - Thursday (18.03 - 21.03)
07:45 -18:00

Friday (22.03)
No Lab access

WEEK 5

Monday - Thursday (25.03 - 28.03)
07:45 -18:00

Friday (29.04)
No Lab access

WEEK 6

Monday - Friday (01.04 - 05.04)
No Lab access

MATERIAL RESEARCH TASK

- Choose one material from the list of topics.
You may also propose your own topic.

Cross-linked Materials (e.g. Thermoplastic elastomers, Polyethylene)

Nano-structured Materials (e.g. Nacre)

Non-Newtonian Materials (e.g. D3o)

Advanced Composites (e.g. Carbon-composites, Reinforced plastics, Aramid-composites)

Porous Materials (e.g. Steel-foam, Aluminium-foam)

Impact Resistance Materials (e.g. Poly-carbonate)

Ultralight Materials (e.g. Aerogel, Carbon Nanotube, Aerographite)

Bio-materials (e.g.

Amorphous Materials (e.g. Amorphous silicon, Amorphous metals)

MATERIAL RESEARCH TASK

- Within the presentation and report, answer the following questions:
 - Basic background about the material
 - Material properties
 - Application area
 - Advantages or disadvantages of it
 - Implications of its production or usage
 - Its potential future applications or refinement
- The final presentation of Material Research Task will be about **10-15 min presentation following a Q&A.**

MATERIAL RESEARCH TASK

- Writing Instructions:
 - Report should be between **1200-1300 words** excl. images.
 - Images can be used as support material.
 - It should consist of an **abstract** (review of text content).
 - It should include **references based on scientific standards.**
 - Follow the **template provided in MyCourses**

THURSDAY 28.02 DELIVERABLES

- Safety Course Completed
- Material Research Topic Choice