

Courses at NTNU NanoLab

August – December 2022

- Signing up for “Cleanroom course” and “Chemical introduction course”: Send an email to nanolab@ntnu.no at least 5 working days before the course.
- Signing up for other courses: Click “Apply” in LIMS to apply for instrument license/area course at least 5 working days before the course starts. If you are not a LIMS user, register at ntnu.norfab.no
- Information about course place and time is sent out to all participants 5 working days before the course.
- Applicants who have sent in an activity form are prioritized for instrument courses. When starting an activity, we will tell you which courses you need, in case you are uncertain. Please see ntnu.norfab.no on how to start an activity. No login required.
- Extra course occasions may be added if many users apply for training.

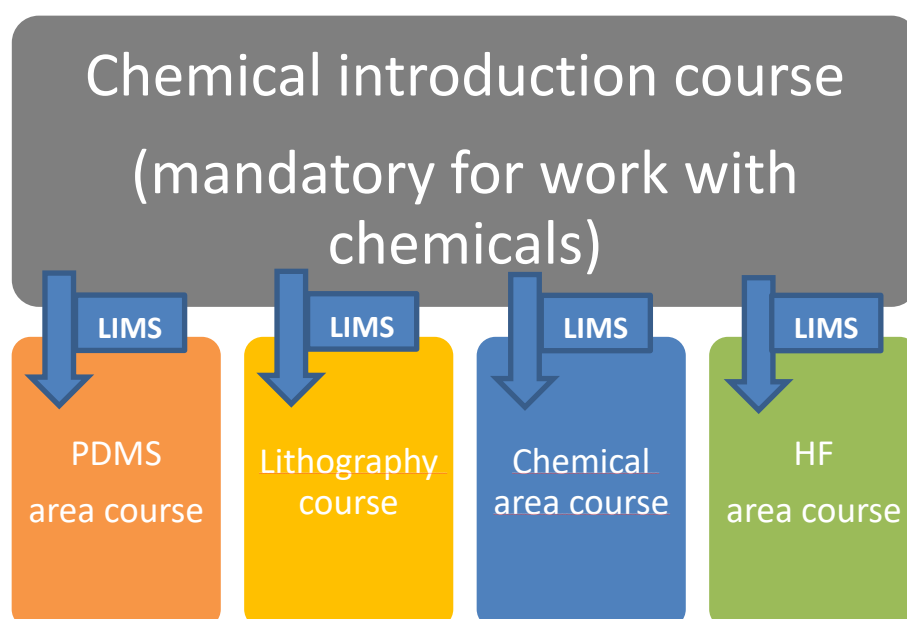
Cleanroom course

As we expect a lot of new users at the beginning of the semester, the course will be on demand the first weeks starting in week 34.

Dates: On demand in week 34, 35, 36 and 37. Other dates will be announced. The course consists of an online course, and tour of the cleanroom. Mandatory for all new users.

Chemical introduction course

Storage, waste handling and administrative guidelines. Mandatory for all users. This is an online course.



Area courses

After an area course, you know where to find everything you need in the area, and special working procedures in that area. The course is mandatory to work in an area.

Lithography area course

Date: On demand

Duration: 5 hours

Online course + practical exam

Comment: All parts are mandatory for work in the lithography, acid or lift-off area. Participation in the chemical introduction course is a prerequisite.

The course will only be held if the minimum number of participants is fulfilled.

PDMS-area course

Date: 23/8, 13/9, 4/10, 25/10, 15/11, 6/12

Duration: 1 hour

Comment: Mandatory for work with siloxanes (PDMS) and silanes. Participation in the chemical introduction course is a prerequisite.

Chemical area course

Date: Scheduled on request

Duration: 1 hour

Comment: Mandatory for work in the chemical area. Participation in the chemical introduction course is a prerequisite.

Chemistry courses

Intensive courses to make your chemistry work safer and more efficient.

HF course

Date: 15/8, 12/9, 10/10, 7/11, 5/12

Duration: Duration: 3 hours (theory and practical session) + 1 hour practical exam

Comment: Mandatory for work with hydrofluoric acid. Participation in the chemical introduction course is a prerequisite.

HF buddy course

Date: Same as for HF course

Duration: 3 hours (theory and practical session)

Comment: This course will not give you license to work with HF, but is mandatory if you want to be buddy for someone working with hydrofluoric acid. Participation in the chemical introduction is a prerequisite.

Wet etch course

Date: Scheduled on request

Duration: 1 hours

Comment: Highly recommended for work with wet etches other than HF. Participation in the chemical introduction course is a prerequisite. Depending on where you will perform wet etch, an area course is required.

Instrument courses

Most instrument courses are scheduled on request, but the following are pre-scheduled. Extra course occasions may be added if there are many applicants.

For more information about all our different instruments, please visit ntnu.norfab.no.

AFM, Dimension ICON

Date: 17/8, 7/9, 28/9, 19/10, 9/11, 30/11

Duration: 3-4 hours

AJA sputter and evaporator

Date: 17/8, 7/9, 28/9, 19/10, 9/11, 30/11

Duration: 5 hours

Electron beam lithography (Elionix)

Date: 30-31/8, 20-21/9, 11-12/10, 1-2/11, 22-23/11

Duration: 5 hours for two days. First day is training. Second day is self-training.

Focused Ion Beam (FIB G2 - Elsa)

Date: 15-16/8, 5-6/10, 26-27/9, 17-18/10, 7-8/11, 28-29/11

Duration: 4+4+1 hours of practical sessions

Maskless aligner MLA 150

Date: 7/9, 27/9, 18/10, 8/11, 29/11

Duration: 2 hours

SEM APREO

On request.

Duration: 4 hours

Other instruments

Courses for all other instruments are scheduled on request.

Micro-Raman spectroscope

Date: 23/8, 6/9, 20/9, 4/10, 18/10, 1/11, 15/11, 29/11. Duration: 2 hours

Nanosight

Date: 30/8, 20/9, 11/10, 2/11, 22/11, 13/12

Duration: 3 hours

Particle size analyzer

Date: 24/8, 14/9, 5/10, 26/10, 16/11, 7/12

Duration: 1 hour

RTP

Date: 17/8, 7/9, 28/9, 19/10, 9/11, 30/11

Duration: 2-4 hours, depending on process

S(T)EM

Date: 22-23/8, 12-13/9, 3-4/10, 25-26/11, 5-6/12

Duration: 3+2+1 hours of practical sessions

NanoDrop UV-Vis

Date: 24/8, 14/9, 5/10, 26/10, 16/11, 7/12

Duration: 1 hour

Drop Shape Analyzer (DSA)

Date: 24/8, 14/9, 5/10, 26/10, 16/11, 7/12

Duration: 3 hours