

What's going to happen at Dynamic Light Scattering University?

Dynamic Light Scattering University (DynaLSU) is designed to get you up and running with your Waters | Wyatt instruments as quickly as possible. The syllabus includes light scattering theory and lots of hands-on work with DLS and PALS instruments and DYNAMICS software. Pass the exams and you'll receive a Master of Light Scattering certificate, in Latin or Greek, guaranteed to impress your boss and coworkers!

Our small class size and student-teacher ratio allow for one-on-one support, including the chance to go over your data with an application scientist. You can find more information on the topics covered on our website at www.wyatt.com/LSU; just scroll down and click on the **DynaLSU Topics** tab.

What is covered in the curriculum:

Day 1

- General light scattering theory and applications
- Instrument maintenance, including cuvette or flow cell cleaning, where applicable
- DYNAMICS software overview

Day 2

- Data interpretation, including guidelines and best practices for producing the highest quality DLS and PALS data; One-on-one data review
- Advanced topics in DLS, PALS, and beyond
- Hands-on lab time, including measurement of student samples. For each sample, please also bring 10 mL of the appropriate solvent in order to perform control measurements and dilutions, as necessary.

Note: While we welcome students to bring samples to DynaLSU, we request that Plate Reader students limit the number of samples to two and NanoStar and Mobius students limit the number of samples to one. This helps us give everyone their fair share of attention.

What is not covered in the curriculum:

- Use of Waters | Wyatt MALS instrumentation
- Care and maintenance of third party liquid handling instrumentation

What other courses may be added:

- Students with both MALS detectors and DynaPro or Mobius detectors may attend both LSU and DynaLSU in the same week.
- DynaLSU and Calypso or Eclipse training may not be attended in the same week. For labs using DLS instruments in addition to CG-MALS or FFF-MALS, we recommend one student attend DynaLSU while a second student attends Calypso or Eclipse training Friday.

Who should attend:

The course is appropriate for both novice users and people with more light scattering experience. Our students have diverse educational backgrounds from bachelor's degrees in biology to Ph.D.s in physics. The lessons learned in DynaLSU will be of tremendous benefit to those individuals who

- Purchased a new DynaPro NanoStar, DynaPro Plate Reader, or Mobius instrument
- Changed job responsibilities and will be using a Waters | Wyatt DLS or PALS detector for the first time
- Have been using a DLS or PALS detector and want to increase their knowledge of light scattering, data analysis, and applications
- Are responsible for finding new applications for light scattering within their research group

How to prepare for DynaLSU?

There is no required reading list or homework in preparation for the course. However, feel free to peruse our application notes and webinars at www.wyatt.com/library to find applications of light scattering similar to your own. Sign up for Support Center access at www.wyatt.com/Support to stay up-to-date with all the latest software updates, manuals, technical notes, and more.

If you have already performed some measurements:

- Bring your data files! Don't forget data for standards and blank injections. We will have opportunities to discuss your particular data and applications during the class although it is not necessary to have data in order to attend class.
- Bring your questions! Ask your colleagues what they are interested in learning from you.

If you have not performed any measurements:

- Get the tour of your instrumentation. Make sure you have an idea of what setup you are using, what your typical solvent(s) will be, and what accessories are being used in conjunction with your Waters | Wyatt detectors (e.g., Mobius Dip Cell, preferred microwell plate, online DLS compatibility kit).
- If your instruments are newly installed, review the Field Service Report and other documentation from your Waters | Wyatt scientist or engineer.

Basic prerequisites:

You don't need a Ph.D. in applied physics to understand the theory and application of light scattering to your samples. However, there is some basic terminology that we'll use throughout the course, and it may be helpful to review these resources:

- Brownian motion: https://en.wikipedia.org/wiki/Brownian_motion
- Electrophoresis: <https://en.wikipedia.org/wiki/Electrophoresis>
- Why is the sky blue? <http://science.howstuffworks.com/nature/climate-weather/atmospheric/sky.htm>

***We look forward to working with you. Please contact us if you have any questions.
Welcome to the world of light scattering!***