

## Chemometrics

21-25 August 2017, 09:00 - 16:30, 5 days

Radboud University, Huygens building, Heyendaalseweg 135,  
Nijmegen

### Content

This five-day course focuses on a number of specific Chemometrics topics, with application examples and hands-on exercises.

### Target audience

The course is taught in the framework of the Analytical Sciences Talent Program (ASTP) for top talents in vocational education (HLO/Universities of Applied Sciences) in the third year of their program (ASTP-2). These students have received earlier training on Chemometrics. The course is also fit for PhD-students who wish to expand their insight into the capabilities of Chemometrics.

### Topics & Schedule

Morning: 09.00 - 12.30 (Monday: 10.00 - 12.30)  
Lunch: 12.30 - 13.30  
Afternoon: 13.30 - 16.30

#### Tentative Schedule

##### Day 1, 21 August 2017

- Morning: Introduction to multivariate analysis; Explorative data analysis: Introduction to PCA | Jeroen Jansen (RUN)
- Afternoon: Computer exercises on PCA.

##### Day 2, 22 August 2017

- Morning: Pattern recognition: PLS, PLS-DA (classification/regression) | Jeroen Jansen (RUN), Validation of classification and regression methods | Geert Postma
- Afternoon: Example of the application of PLS-DA, Exercises on PLS, PLS-DA and validation

##### Day 3, 23 August 2017

- Morning: Data Pre-processing and more advanced procedures | J. Engel
- Afternoon: Pre-processing applied to industrial data, Exercises on Data Pre-processing

##### Day 4, 24 August 2017

- Morning: Various more advanced PCA-based methods; PCA applied to healthcare data
- Afternoon: Practical: Data Analysis assignment and contest

##### Day 5, 25 August 2017

- Morning: presentation of results on assignment; wrapping up the course

## Lecturers

### **Dr. Jeroen Jansen**

*Acting head of the department of Analytical Chemistry, and assistant professor at Radboud University Nijmegen*



Jeroen Jansen received his MSc in chemistry and chemical engineering from the University of Amsterdam in 2001. In 2005, he obtained his PhD from the Process Analysis and Chemometrics group at the University of Amsterdam. He then started a Post-Doctoral research position at the Netherlands Institute for Ecology (NIOO-KNAW). In 2009, he went for a second Post-Doctoral position to the Netherlands Metabolomics Centre, where he developed Individual Differences Scaling, a PCA-like method from management science, for applications to metabolomics data. In 2011, he was appointed Assistant Professor at the Chemometrics group of the Radboud University, where he now focuses on

integrating biological and industrial concepts with multivariate data analysis to develop more information-rich and dedicated chemometric models. In this, he broadens his analytical scope, including industrial spectroscopic and other 'omics' data.

Lecturers include several co-workers, PostDocs and PhD-students from Radboud University Nijmegen and speakers from industry.

## At the end of the course

You will have gained knowledge of the basics of Chemometrics, their applications and recent developments.

## Course duration and time investment

Course duration: 5 days from 09:00 till 16:30  
Participant's investment: 5 day + optional self-study

## Extra Information

This course is part of the ASTP Summer Course and is taught every year.

### Course fees:

- €800 (ex. BTW/VAT) per day
  - COAST members pay a reduced fee of €400 per day (ex. BTW/VAT) or use a wildcard
  - ASTP / MSc+ students: Free
- Special fees can be offered to PhD students and companies registering for three or more persons.

For up-to-date information about the course program visit our website at [www.ti-coast.com/L3](http://www.ti-coast.com/L3).

Please contact us for more information.

## Registration

To register please visit: <http://www.ti-coast.com/registrationsummercourses2017> or fill out, sign and email the form attached to [lifelonglearning@ti-coast.com](mailto:lifelonglearning@ti-coast.com).

**Registration Form****Chemometrics****21-25 August 2017, 09:00-16:30****Radboud University, Huygens building, Heyendaalseweg 135, Nijmegen**

Name	
Organization	
Address	
Billing address (if different from above)	
Educational background	
Email address	
Phone number	

**I will attend on the following date(s):**

- Day one: 21 August 2017
- Day two: 22 August 2017
- Day three: 23 August 2017
- Day four: 24 August 2017
- Day five: 25 August 2017

**Payment**

- I will pay the full course fee of €800 per day (ex. BTW/VAT)
- I am a member of KNCV and will pay €600 per day (ex. BTW/VAT)
- I qualify for 50% discount, because my employer is a COAST participant, and will pay €400 per day (ex. BTW/VAT)
- I am a PhD student and will pay €400 per day (ex. BTW/VAT)
- I am a PhD student from a group participating in COAST and will pay €200 (ex. BTW/VAT) per day
- I have received a wildcard from: ..... Therefore, I will follow this course for free (note: this person must receive a copy of your registration mail, to indicate approval)

**Date:****Place:****Signature:**

To register, please email the duly signed registration form to [lifelonglearning@ti-coast.com](mailto:lifelonglearning@ti-coast.com)