

## Program at a Glance:

### Application:

Complete application procedures are available at [www.nanosummer.de](http://www.nanosummer.de).

Please send your application (personal data, cover letter, CV, academic transcript, letter of recommendation, proof of English skills) by e-mail to:

[application@nanosummer.de](mailto:application@nanosummer.de)

**The extended deadline for applications is February 17, 2013.**

The number of participants is limited to 20.

### Requirements:

Third to fifth academic year, with a major in science or engineering and a strong grade point average.

### Academic Credit:

Each participant will receive a transcript of records recommending up to 10 ECTS credit points for completion of the program. The participants themselves are responsible for arranging the transfer of credits to their home institution.

### Fees:

The total fee for the seven-week CENIDE Nano Summer Program is €3,000. This amount includes the language and culture program, excursions, lectures, research projects, industry visits, accommodation, health insurance, public transportation, enrollment, and program material. A limited number of scholarships will be awarded to exceptional applicants to cover one half of the program fee (€1,500).

### Accommodation:

Participants will stay in the "Bildungshotel" in single rooms with private bathrooms and free wireless internet access. The "Bildungshotel" is located in the center of Essen, close to the campus and with good access to public transportation.

## Further Information & Contact:

### Online:

[www.nanosummer.de](http://www.nanosummer.de)  
[info@nanosummer.de](mailto:info@nanosummer.de)

### Address:

CENIDE – Center for Nanointegration Duisburg-Essen  
University of Duisburg-Essen  
Forsthausweg 2  
47057 Duisburg  
Germany  
[www.cenide.de](http://www.cenide.de)

### Contact Person:

Dr. Tobias Teckentrup  
Managing Director CENIDE  
Phone: +49 203 379-2817  
Fax: +49 203 379-1895  
E-mail: [tobias.teckentrup@uni-due.de](mailto:tobias.teckentrup@uni-due.de)

### Program Committee:

Prof. Dr. Stephan Barcikowski, Faculty of Chemistry  
Prof. Dr. Daniel Erni, Faculty of Engineering  
Prof. Dr. Axel Lorke, Faculty of Physics  
Dr. Tobias Teckentrup, CENIDE

Photos: © CENIDE (3) / © Ruhr Tourismus, Jochen Schlutius (1)

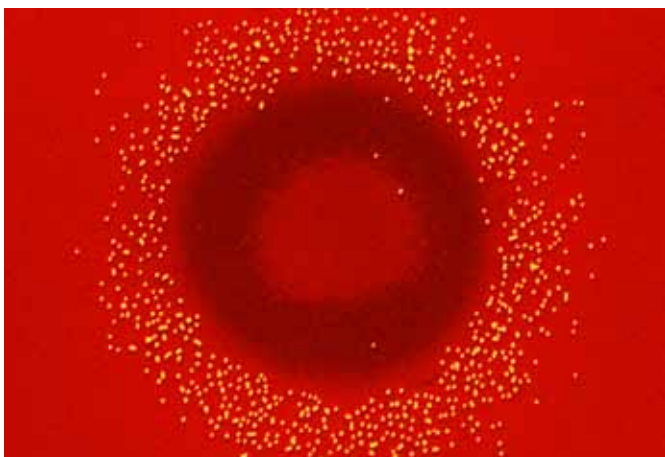


UNIVERSITÄT  
DUISBURG  
ESSEN

*Open-Minded*

## CENIDE Nano Summer Program

University of Duisburg-Essen, Germany  
June 2 - July 20, 2013  
[www.nanosummer.de](http://www.nanosummer.de)



## Discover a new world!

The CENIDE Nano Summer Program is a seven-week international academic program focusing on the exciting and emerging field of nanotechnology. It was successfully held in 2012 for the first time, when 16 students from 10 different countries participated. The program is designed for outstanding students from all over the world in their third to fifth academic year with a major in science or engineering.

Participants will gain various insights into the field of nanotechnology, which lies at the intersection of science and engineering. Because nanotechnology enables manipulation of material properties, it is one of the key technologies of the 21st century. It is applied in many different areas, such as energy technology, information and communication technology, or consumer products, and it is an important innovation driver.

The summer program is organized by the Center for Nanointegration Duisburg-Essen (CENIDE) at the University of Duisburg-Essen (UDE). The UDE is one of the 10 largest universities in Germany, and is located in the Rhine-Ruhr metropolitan region.

CENIDE, one of Europe's most important nanotechnology research clusters, consists of more than 50 top-level research groups from different areas of nanotechnology. This makes it an ideal location for students to learn about nanotechnology and establish contact with leading experts.



## Program: June 2 – July 20, 2013

### Language and Culture:

Through classes in the first week and excursions to nearby cultural highlights, the participants will have the chance to become more familiar with the German language and culture, with a focus on the Rhine and Ruhr Area. Trips to Amsterdam, Bonn, and Cologne will also take place.

### Lectures:

From the second week on, introductory and advanced lectures about nanotechnology will be offered. The lectures will start with two days of introduction followed by one lecture day per week. The following topics will be covered:

- Fundamentals
- Fabrication
- Processing and Functionalization
- Analysis and Properties
- Applications and Sustainability
- Case Studies

### Research Projects:

The participants will gain lab experience in intensive six-week research projects in the labs of the UDE.

### Industry:

During the program various visits and academic talks will be offered at companies working on industrial applications of nanotechnology.



## Rhine-Ruhr: In the Heart of Europe

The University of Duisburg-Essen is located in the Rhine-Ruhr metropolitan region, in the heart of Europe. With more than 11 million inhabitants, it is Germany's largest and Europe's fifth largest metropolitan region. It is named after the Rhine and Ruhr rivers, which are the region's defining geographical features and historically its economic backbone. Its location makes it well connected to other major European cities such as Amsterdam, Paris, London, Munich, Berlin, and Frankfurt. The region has transformed itself from a center for heavy industry into a hub for knowledge, technology, and service, and continues to have enormous economic importance. In 2010 the Rhine-Ruhr region was chosen as the European Capital of Culture.

