

MISSION

The mission of the “Berlin International Graduate School of Natural and Engineering Sciences” (BIG-NSE) is to provide an institutional framework to:

- Facilitate and foster the scientific integration of talented young researchers within the UniCat Cluster.
- Provide an educational programme to ensure state-of-the-art training of the students.
- Provide transparent mechanisms for recruiting the most talented graduate students.
- Deal with the administrative requirements of the participating students and supervisors.

Main characteristics of the school

The main characteristic of the BIG-NSE is a comprehensive integration and mentoring programme for its students, especially foreign students.

Further aspects of the PhD studies offered at the BIG-NSE are:

- Possibility of carefully choosing the PhD subject and the future work group during the initial phase
- Preparation of a schedule by the students themselves during the first three months.
- Continuous supervision by two professors/senior scientists and one mentor.
- Regular evaluation of the students’ work/study achievements.

Active support is given to the students through:

- An “Initial Phase”, with intensive support especially regarding administrative and integration aspects.
- Language and soft skill courses.
- Financial support.
- Regular lectures presented by renowned guest scientists from all over the world.
- Continuous support for all professional and social aspects.
- Financial support for scientific and teaching material.

FACULTY

The UniCat Faculty, consisting of internationally renowned professors and junior researchers from approx. 50 research groups at 6 participating institutions and active in a dozen research fields, will be intensively involved in the supervision and mentoring of the BIG-NSE students.

Scholarships

PhD students will be financed by scholarships provided by the BIG-NSE or directly from the respective research groups.

Director: Prof. Dr. Martin Oestreich
(TU Berlin)

Contact: Dr. Jean-Philippe Lonjaret
Managing Director of BIG-NSE

Tel.: +49 (0)30 314 23150

Fax.: +49 (0)30 314 28594

E-mail: lonjaret@big-nse.tu-berlin.de

Address: Technische Universität Berlin
Catalysis Inn, Sekr. BEL5
Strasse des 17. Juni 135
10623 Berlin

The host Institution of the BIG-NSE is:



The partner institutions of the UniCat Consortium are:



Freie Universität Berlin



Max-Planck-Institut für Kolloid- und Grenzflächenforschung



Fritz-Haber-Institut der Max-Planck-Gesellschaft

Fotos: JP Lonjaret

BIG  **NSE**



**“Learning excellence
in excellent conditions”**

www.big-nse.tu-berlin.de

**Berlin International Graduate School
of Natural Sciences and Engineering**

OVERVIEW

The BIG-NSE is an international Graduate School founded in May 2007 at the Technische Universität Berlin (TUB).

The School is part of the Cluster of Excellence "Unifying Concepts in Catalysis" (UniCat – see www.unicat.tu-berlin.de) founded by the TUB and five further Institutions in the Berlin area within the framework of the German government's "Excellence Initiative".



The high-ranking research in catalysis covers a broad range of topics, from natural sciences to engineering. The success of this research programme, which is unique in Germany, requires highly-qualified and motivated young researchers in the different projects.

To achieve this goal, the BIG-NSE offers a structured curriculum for obtaining the degree of "Doctor" within 3 years.



CURRICULUM

The BIG-NSE study programme is limited to three years. Students admitted to the School first pass through an "Initial Phase", usually of three months, to integrate the different branches of science and engineering and establish a common scientific language.

The students not only attend the same lectures and courses, but also work together in the same offices during this Initial Phase. For integration of the students into the School, each new student will have a mentor from the group of more senior students of the School. Each student will prepare a research proposal as a guideline for his/her future mentoring. In a final workshop, each student will present his/her project in front of the UniCat Cluster faculty.



Subsequently, the students join their research groups for the individual research project. Annual reports and frequent meetings with their Advisory Committee provide guidelines for the successful continuation of their work. Parallel to their research work, the PhD students attend "Lecture Courses" by members of the UniCat Cluster.

The programme of the School includes Summer and Winter Schools that are open to external researchers and students to get develop new ideas, and transfer knowledge to research partners and industry.

Training of "soft" skills (e.g. presentations, project management) and excursions to industrial enterprises will be offered regularly.

REQUIREMENTS

The entry requirements for the BIG-NSE are:

- A Master's degree or German Diploma in chemistry, biology, physics or engineering.
- A Certificate of English Proficiency (TOEFL with a minimum of 550, or equivalent) for applicants whose native language is neither English nor German.
- Two letters of recommendation.

Recruitment

A central part of the BIG-NSE activities is the recruitment of excellent national and international students that meet the highest international standards of qualification. Between 10 and 15 highly-qualified students will be recruited every year.

Applications will be accepted by the board once a year. The corresponding positions will be advertised in appropriate media and at collaborating international institutes.

Annual deadline for applications:

January 15

for applicants who wish to be considered for a BIG-NSE scholarship (with a programme start on October 1).

August 31

for applicants who wish to be admitted as BIG-NSE fellows (without BIG-NSE scholarship; same programme start date as above mentioned).

