

Academic Program for Ph.D. Candidates in Materials Science and Engineering

Program overview

This program will ensure that students get a solid basis in Materials Science and Engineering, the various methods of conducting scientific research and the development of professional skills. In the first year, the main focus will be on expanding one's knowledge of the field and improving the student's ability to deliver high quality scientific research. In addition, a topic will be chosen for the dissertation and the associated research plans will be made. After getting approval from the research committee, students can start focusing on their graduation. The second, third and fourth year will focus on research for the dissertation, of which an important part is the publishing of papers in relevant journals.

Target audience and eligibility

This training program has been designed for students who want to further their career in the field of Materials Science and Engineering. To be eligible to apply the following criteria should be met:

1. Have a Master degree in Material Science and Engineering or related sciences.
2. Must be a non-Chinese citizen and hold a foreign passport accordingly.
3. Must be able to speak English and satisfy the requirement related to this¹.
4. Two letters of recommendation by at least assistant professors.
5. Must be in good mental and physical health².

Study Period and Length of Studies

The academic year starts in September and ends in June. The length of this program is 4 years.

¹ This means or have a passport from a native speaking English country or be able to prove that your highest obtained diploma or degree was given fully in English medium or you have a IELTS certificate with a score of at least 6.0 or a TOEFL score of at least 80.

² This has to be proven by the filling in of a 'physical examination form' by a medical doctor and should be certified accordingly

Fees

| Fee type | Fee amount |
|------------------------------------|------------|
| Tuition per year | ¥34,000 |
| Accommodation per day ³ | ¥35-45 |
| Registration fee | ¥400 |
| Medical insurance per year | ¥800 |

Aim of the program

The aim of the program is to educate the next generation of Materials Science and Engineering talent to be able to compete with their peers in the global job market. Through extensive training and research practise, the student will graduate and hold the Ph.D. degree enabling him or her to work in the cutting-edge field of Materials Science and Engineering design or work as an academic enabling the scientific breakthroughs of the future.

Learning outcomes and methods of assessment

To ensure students can get the maximum out of his or her talents, they are encouraged to specialize in one of five areas. These areas are:

1. Material Science
2. Material Engineering
3. Material physics and chemistry
4. Material packaging

To ensure students have a broad and in-depth knowledge, the following courses are given in the first year. The courses that will be given are listed below.

| Course Title and description | Assessment Method |
|--|--------------------------|
| Essentials of Material Science and Engineering | Written exam |
| Material phase transformation | Written exam |
| Thermodynamics of materials | Written exam |
| Thermo-Physics of welding | Written exam |

³ Can vary depending on the room type.

| | |
|--|--------------|
| Principles of welding technologies | Written exam |
| Welding inspection and quality control | Written exam |
| Theory and technologies of sheet metal forming | Written exam |
| Theories and technologies of surface engineering | Written exam |
| Science and engineering of advanced polymers | Written exam |
| Advanced ceramics | Written exam |
| New methods for polymer synthesis | Written exam |
| Materials engineering technology | Written exam |
| High performance composites | Written exam |
| Multivariate data analysis | Written exam |
| Chinese Language Courses (HSK) | Written exam |
| China Survey | Written exam |

After the first-year, students will regularly meet with their supervisors in order to discuss their progress on their dissertations and publications in related journals. Also, students will have some China related courses not mentioned above, such as Chinese language, culture, etc..

When and how to apply

Applicants can apply starting from December 20th, 2021 till May 31st, 2022. For more information on the documents needed and the application procedure, please visit: <http://www.istudy.sdu.edu.cn>.

Application for financial support

There are possibilities for getting a scholarship either by the China Scholarship Council (CSC), the local government or through Shandong University. For more information on CSC scholarships please, visit: <http://www.campuschina.org/>. For more information on local government or university scholarships please, visit: <http://www.istudy.sdu.edu.cn>.

Contact information (for program inquiries)

Address: School of Materials Science and Engineering, Shandong University (Qianfoshan Campus), 17923 Jingshi Road, Jinan, P.R. China; Postal Code: 250061.

Tel: +86(0)531-88392915

E-mail: 201894000013@sdu.edu.cn

Website: <http://www.en.sdu.edu.cn/>