UNIVERSITY OF SCIENCE AND TECHNOLOGY BEIJING
The origins of the University of Science and Technology Beijing can be traced back to the first mining and metallurgy disciplines in the modern history of China founded by the Beiyang Western Academy in 1895. In 1952, the university was formed by bringing together the departments of six famous universities, including Tsinghua University and Tianjin University. It has now developed into a key university under the Ministry of Education, with the coordinated development of engineering, science, management, humanities, economics, law and other disciplines. USTB is one of the first institutions of higher education in the country to formally establish a graduate school. In May 1997, USTB joined the national “211 Project”. In 2006, USTB was selected to be part of the “Platform for National Advanced Disciplines Innovation”. In 2014, the “Collaborative Innovation Center of Steel Technology” led by USTB was successfully selected to be part of the national “2011 Plan”. In 2017, we were selected as a “Double First-Class” university. While retaining its current leading position in metallurgy and materials sciences, USTB is also making great efforts to develop other areas and to achieve a balanced disciplinary structure in engineering and technology, science, management, economics, social sciences, humanities and law in the near future.

USTB greatly values and will forever cherish its long tradition of being “Rigorous in Learning and Research, and Venerating Practice”. Over 200,000 graduates are contributing to society all over the world: most of them have become professionals and joined our national elites in the fields of politics, economics, science, engineering and education. As metallurgy and materials science are the two disciplines for which it is most renowned, USTB is also known as “the cradle of iron and steel engineers”.

USTB has maintained close collaboration with nearly 130 local communities, extending the university’s social responsibility and developing further opportunities for worldwide enterprises in research, academic and educational fields. It has so far entered into partnership with over 180 foreign universities and institutes from different countries in Europe, North America, and Asia.

USTB is committed to the motto “Seeking Truth and Endorsing Innovation” and is now working hard towards its goal of becoming one of the top-ranking research universities in China and an internationally renowned higher education institute with its own distinguishing characteristics. While retaining its current leading position in metallurgy and materials sciences, it is also making great efforts to develop other areas and to achieve a balanced disciplinary structure in engineering and technology, science, management, economics, social sciences, humanities and law in the near future.
1952
Departments from Tianjin University, Tsinghua University, Tangshan Railway Institute, Shanxi University, Beijing Institute of Technology, and Northwest Institute of Technology are reorganized to form the Beijing Institute of Iron and Steel Technology.

1960
Renamed as “Beijing University of Iron and Steel Technology” and becomes a key national institution.

1984
One of the first 22 colleges and universities in China entitled to establish graduate schools.

1988
Renamed as “University of Science and Technology Beijing”.

1997
Joining the first group of universities chosen to be part of China’s “211 Project”.

2006
One of the few pilot universities selected for the “Platform for National Advanced Disciplines Innovation.”

2014
“Collaborative Innovation Center of Steel Technology” led by USTB was selected to be part of the national “2011 Plan.”

2017
Selected as a national “double first-class” university to develop History of Science and Technology, Materials Science and Engineering, Metallurgical Engineering, and Mining Engineering into internationally top-rank disciplines.

2018
The State Administration of Science, Technology and Industry for National Defense joined with the Ministry of Education to supervise and assist USTB in its further development.
USTB is one of the first batch of national first-class discipline construction universities. While putting major effort on the construction of first-class disciplines, USTB promotes the development of related disciplines and interdisciplinary disciplines, laying out the construction and development of new fields such as artificial intelligence, and promoting the establishment of a complementary faculty system, thus constituting a comprehensive structure featuring “prominent strengths, distinctive features, reasonable structure and a balanced multi-disciplinary development”.

**National Fourth-Round Discipline Assessment**

<table>
<thead>
<tr>
<th>Discipline Name</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metallurgical Engineering</td>
<td>A+</td>
</tr>
<tr>
<td>History of Science and Technology</td>
<td>A+</td>
</tr>
<tr>
<td>Material Science and Engineering</td>
<td>A</td>
</tr>
<tr>
<td>Mining Engineering</td>
<td>B+</td>
</tr>
<tr>
<td>Environmental Science and Engineering</td>
<td>B+</td>
</tr>
<tr>
<td>Control Science and Engineering</td>
<td>B+</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>B+</td>
</tr>
<tr>
<td>Computer Science and Technology</td>
<td>B+</td>
</tr>
<tr>
<td>Power Engineering and Engineering</td>
<td>B</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>B</td>
</tr>
<tr>
<td>Chemistry</td>
<td>B</td>
</tr>
<tr>
<td>Foreign Language and Literature</td>
<td>B</td>
</tr>
<tr>
<td>Management Science and Engineering</td>
<td>B</td>
</tr>
<tr>
<td>Marxist Theory</td>
<td>B</td>
</tr>
<tr>
<td>Business Administration</td>
<td>B</td>
</tr>
</tbody>
</table>

**Top Disciplines**

According to the ESI data, USTB’s materials discipline has entered the world’s top 1‰, while the engineering, chemistry and computer fields have steadily occupied the top 1%.

**World-class Discipline Construction**

- History of Science and Technology
- Metallurgical Engineering
- Mining Engineering
- Material Science and Engineering
- Mechanical Engineering
- Computer Science and Technology
- Power Engineering and Engineering Thermophysics
- Civil Engineering
- Chemistry
- Foreign Language and Literature
- Management Science and Engineering
- Marxist Theory
- Business Administration

**The University of Science and Technology Beijing (USTB)** is one of the first batch of national first-class discipline construction universities. While putting major effort on the construction of first-class disciplines, USTB promotes the development of related disciplines and interdisciplinary disciplines, laying out the construction and development of new fields such as artificial intelligence, and promoting the establishment of a complementary faculty system, thus constituting a comprehensive structure featuring “prominent strengths, distinctive features, reasonable structure and a balanced multi-disciplinary development”.

**DISCIPLINE DEVELOPMENT**

- **History of Science and Technology**
- **Metallurgical Engineering**
- **Mining Engineering**
- **Material Science and Engineering**
- **Mechanical Engineering**
- **Computer Science and Technology**
- **Power Engineering and Engineering Thermophysics**
- **Civil Engineering**
- **Chemistry**
- **Foreign Language and Literature**
- **Management Science and Engineering**
- **Marxist Theory**
- **Business Administration**

**National Key Disciplines**

- **Four First-Class Disciplines**
  - Material Science and Engineering
  - Metallurgical Engineering
  - Mining Engineering
  - History of Science and Technology
- **Two Second-Class Disciplines**
  - Mechanical Design and Theory
  - Thermal Power Engineering
- **One National Key Cultivating Discipline**
  - Control Theory and Control Engineering

**Key Disciplines of Beijing Municipality**

- **Three First-Class Disciplines**
  - Mechanical Engineering
  - Management Science and Engineering
  - Power Engineering and Engineering Thermophysics
- **Seven Second-Class Disciplines**
  - Education in Ideology and Politics
  - Engineering Mechanics
  - Control Theory and Control Engineering
  - Computer System Architecture
  - Geotechnical Engineering
  - Communication and Information Systems
  - Environmental Engineering
- **Two Cross-Disciplines**
  - Physics of Nanomaterials and Device
  - Optoelectronic Information Materials and Devices

**Undergraduate Programs**

- 50

**Accreditation of Engineering Education Programs**

- 12

**Master’s Degree Authorized First-Class Disciplines/Master’s Degrees**

- 30 / 138 / 8

**Doctoral Degree Authorization First-Tier Disciplines/Doctoral Degree Programs**

- 20 / 80

**Post-Doctoral Research Programs**

- 16
USTB boasts a faculty that adheres to a strict code of academic conduct and ethics, insists on educating students with high ideals, good morality, and acting as a role model for students to inspire innovation, develop good character, dedicate themselves to knowledge, and support the nation. In recent years, USTB has vigorously implemented the strategy of strengthening its academic competence with talented experts specializing in a variety of fields from both home and abroad. Meanwhile, it has been constantly strengthening the ideological and political work of the teachers and of their ethics. We strive to build a high-level faculty based upon academic excellence and innovative professional work, with a solid structure and high vitality.

2018 Faculty Data

Number of Teachers in 2018: 1649

<table>
<thead>
<tr>
<th>Titles</th>
<th>Unit: Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor</td>
<td>865</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>603</td>
</tr>
<tr>
<td>Lecturer</td>
<td>197</td>
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<tr>
<td>Junior Lecturer</td>
<td>9</td>
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</tbody>
</table>

Faculty Degree Held

<table>
<thead>
<tr>
<th>Degree</th>
<th>Unit: Person</th>
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</thead>
<tbody>
<tr>
<td>PhD</td>
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<tr>
<td>Master’s Degree</td>
<td>233</td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
<td>15</td>
</tr>
</tbody>
</table>

Outstanding Talents

- Academician of the Chinese Academy of Sciences: 3
- Academician of the Chinese Academy of Engineering: 5
- Member of the State Council: 1
- academic committee: 5
- Chief Scientist of the National Key Basic Research Program (973 Program): 3
- Distinguished Professor of the “Chang Jiang Scholars Program”: 15
- Guest Professor of the “Chang Jiang Scholars Program”: 4
- National Science Fund for Distinguished Young Scholar: 21
- Leading Scholars of the Ten Thousand Talent Program: 7
- National Distinguished Teachers: 2
- State-level Experts Recognized for Outstanding Contributions: 15
- Ministry-level Experts Recognized for Outstanding Contributions: 10
- Millions of Leading Engineering Talents: 17

Unit: Person

| Young Top-notch Talent of the Ten Thousand Talent Program | 3 |
| Outstanding Youth Science Foundation | 15 |
| Candidates for China’s Ministry of Education’s “Support Program for New Century Excellent Talents” | 5 |
| Candidates for China’s Ministry of Education’s “Support Program for New Century Excellent Talents in Universities” | 12 |
| Winners in the MOE’s “Plan for Supporting Personnel in the 21st Century” | 91 |
| Winners of China Youth Science and Technology Award | 5 |
| Beijing Distinguished Teachers | 31 |
| Beijing Distinguished Young Teachers | 4 |
| Young Teachers Award of Fish Ying Tung Education Foundation | 8 |
| Special Award Winners of Baosteel Education Foundation for Outstanding Teachers | 5 |
| Special Award Nomination of Baosteel Education Foundation for Outstanding Teachers | 2 |
| Baosteel Education Foundation for Outstanding Teachers | 43 |

Famous Scholars

- Distinguished Professor of the “Chang Jiang Scholars Program”
  - Qiao Lijie
  - Zhang Zhihui
  - Qu Xuanhuai
  - Zhu Hongmin
  - Xie Jianxin
  - Jiang Jiaohuang
  - Yang Xiyan
  - Jiang Yong
  - Wu Aixiang
  - Lu Zhaoping
  - Liu Junpin
  - Wang Yanding
  - Long Kejun
  - Zhang Lifeng
- Guest Professor of the “Chang Jiang Scholars Program”
  - Cai Meifeng
  - Zhang Jishan
  - Qu Xuanhuai
  - Xie Jianxin
  - Jin Jiaohuang
  - Yang Xiyan
  - Jiang Yong
  - Wu Aixiang
  - Lu Zhaoping
  - Liu Junpin
  - Wang Yanding
  - Long Kejun
  - Zhang Lifeng
- National Natural Science Fund for Distinguished Young Scholar
  - Qiao Lijie
  - He Xueqiu
  - Qu Xuanhuai
  - Xie Jianxin
  - Zhang Yue
  - Wu Aixiang
  - Jiang Jiaohuang
  - Guo Zhancheng
  - Chen Longqiang
  - Lin Qiang
  - Jiang Xian
  - Qiao Hong
  - Wang Yanding
  - Long Kejun
  - Lu Zhaoping
  - Li Zhengping
  - Yang Jiaying
  - Wang Shouguo
  - Zhang Lifeng
- Leading Scholars of the Ten Thousand Talent Program
  - Jiang Jiaohuang
  - Lu Zhaoping
  - Fan Xiangyan
  - Liu Xuefeng
  - Li Congju
  - Xing Yi
- National Award for Distinguished Teachers
  - Yu Yongning
  - Cai Meifeng
- Distinguished Professor of the “Chang Jiang Scholars Program”
  - Zhou Guozhi
  - Chen Nanxian
  - Ge Changchun
  - Hu Zhenghuan
- Guest Professor of the “Chang Jiang Scholars Program”
  - Cai Meifeng
  - Xie Jianxin
  - Wang Yide
- National Natural Science Fund for Distinguished Young Scholar
  - Qiao Lijie
  - He Xueqiu
  - Qu Xuanhuai
  - Xie Jianxin
  - Zhang Yue
  - Wu Aixiang
  - Jiang Jiaohuang
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  - Guo Zhancheng
  - Chen Longqiang
  - Lin Qiang
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  - Qiao Hong
  - Wang Yanding
  - Long Kejun
  - Lu Zhaoping
  - Li Zhengping
  - Yang Jiaying
  - Wang Shouguo
  - Zhang Lifeng
  - Jin Jiaohuang
- Leading Scholars of the Ten Thousand Talent Program
  - Jiang Jiaohuang
  - Lu Zhaoping
  - Fan Xiangyan
  - Liu Xuefeng
  - Li Congju
  - Xing Yi
- National Award for Distinguished Teachers
  - Yu Yongning
  - Cai Meifeng

Winners of National Basic Teaching Skills Competition for Young Teachers

- Chu Jixun
  - Fourth National Science Group Finals
  - First Place
  - Li Na
  - Third National Science Group Finals
  - First Place
  - Zhao Luta
  - Second National Science Group Finals
  - First Place
USTB adheres to its core objectives of education and talent cultivation by strengthening undergraduate education and deepening the reform of postgraduate training, and is committed to cultivating students with sound personality, a strong sense of social responsibility and solid academic background as well as strong practical abilities. We strive to imbue our students with an innovative spirit, entrepreneurial awareness and international vision.

**Student Profile**

USTB has more than 25,000 full-time students. It has developed a multi-level and integrated system that provides graduate education, full-time undergraduate education, international students education, adult education, continuing education and distance education.

**Student and Freshman Data of 2018**

[Graph showing student population and admissions data for different categories: Undergraduate, Master’s degree students, PhD, International students (including language learners), Higher Vocational Education, Adult Education, Distance Learning.]

**2018 Graduate Employment Data**

The employment rate of USTB graduates is stable, with the proportion of graduates in key areas and industries being relatively high. USTB graduates are widely praised by their employers.

[Graph showing contract rate and employment rate for Undergraduate, Master’s degree students, Total.]
USTB adheres to the “undergraduate-oriented” principle to be implemented in four ways: deepen the comprehensive reform in undergraduate education, implement reform of the diversified talent training model, the subjective classroom model, and the student-based management system, so as to improve the quality of undergraduate students.

To provide the best education to students in different fields, USTB employs a new diversified model of cooperative and collaborative education, so as to meet the needs of all those who attend our university.

Undergraduate Teaching and Education

In recent years USTB has worked to address curriculum construction as the core, giving full play to the important role of classroom teaching in cultivating students’ quality and ability. This has been accomplished by starting research-based teaching model class, all-English teaching model courses, core courses for Competence Education and the construction of MOOC. The utmost goal is to promote the transformation of the classroom teaching model campus-wide.

Promoting Evolving Methods of Classroom Teaching

USTB implements an undergraduate mentor system, having built a “3+3” service model. This system aims to realize the “one drop, two rise, and three fulfillment” goal (that is, reduce the rate of students’ failing their exams, raise the rate of graduating students’ further study and employment, and improve the satisfaction of students, parents, teachers, USTB and society).

Cultivation of Postgraduate Talents

Following the tradition of being dedicated to practice and promoting the integration of Industry–Academia-Research, USTB has made great efforts to promote postgraduate classification training reform. We have also established a multi-level, multi-form postgraduate recruitment and training system including full-time academic degree, full-time professional degree, part-time professional degree, senior management MBA (EMBA), Hong Kong, Macao and Taiwan graduate students etc. In this way, the quality of cultivated talents has been continuously improved.

PhD Supervisor Excellent Doctoral Theses 2018 PhD Publications Award Coverage

| National Excellent Doctoral Dissertations | 816 | SCI | 100% |
| National Excellent Doctoral Dissertations in China Program | 350 | EI |
| Excellent Doctoral Dissertations in Beijing | 3.65 Average PhD Candidate Publications |

Cumulative Teaching and Educational Achievements

National Characteristic Specialties 10
National Experimental Teaching Center of Excellence 2
National Experimental Zone for Talents Training Model Innovation 1
National Teaching Achievement Awards 8
State-Level Teaching Teams 2
State-Level Excellent Courses 8
State-Level Excellent Open Courses 5
State-Level Excellent Online Courses 4
National Bilingual Teaching Model Course 6
National Level MOOCs (Massive Open Online Courses) 2
State-Level Excellent Quality Textbook 1
State-Level planned Textbooks (including pending project approval) 59
National Award for Distinguished Teachers 2
State-Level Education Reform Project 10
State-Level Virtual Experimental Training Center 2

Beijing Characteristic Specialties 9
Beijing Experimental Teaching Centers of Excellence 8
Beijing Innovative Experimental District for Talent Education 1
Beijing Exemplary Bases for Innovative Practices 3
Beijing External Training Bases 5
Provincial and Ministerial Teaching Achievements Awards 66
Beijing Outstanding Teaching Teams 9
Beijing Excellent Courses 24
Beijing Excellent Textbooks 48
Beijing Teaching Awards 33
Beijing Young Teacher Awards 4
Beijing Education Reform Project 36
Beijing Higher Education Teaching Demonstration Base 3
Beijing Student Quality Education Base 1
With the goal of cultivating students’ innovative and entrepreneurial spirit as well as practical ability, USTB strives to make these elements the internal driving forces for students’ development. By integrating innovation and entrepreneurship education into the whole process of talent cultivation, USTB has formed an Innovation and Entrepreneurship Education system featured by “comprehensive coverage, sequential progress, special creation and integration, intensive practice training” and is approved as “National Typical Experienced University with In-depth Characteristics of Innovation and Entrepreneurship Education Reform”.

29 Innovation and Entrepreneurial Courses

Activities for nearly 10,000 students
Brand Activities: Cradle Cup Competition, Start-up Experience Day, Shell Angel Camp, etc.

Undergraduate Science and Technology Innovation Project
Instructors: 639
Project teams: 597 (national level: 74, municipal level: 88)

Student Entrepreneurship Team
Incubation and entrepreneurship teams: 18
Total Financing: 10+ Million Yuan

2018 Awards in Student Competitions

<table>
<thead>
<tr>
<th>Competition</th>
<th>Awards</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018 “Creating Youth” National College Students Entrepreneurship Competition (including special competitions)</td>
<td>Gold Award: 2, Silver Award: 2, Bronze Award: 4</td>
</tr>
<tr>
<td>China Aeromodelling Design Challenge in 2018</td>
<td>Gold Award: 1, Silver Award: 3, Bronze Award: 2</td>
</tr>
<tr>
<td>43rd ACM International Collegiate Programming Contest (Asian Regional)</td>
<td>Third Prize: 1</td>
</tr>
<tr>
<td>2018 National Higher Education of Mining Engineering Practical Work Contest</td>
<td>First Prize: 1, Second Prize: 3, Third Prize: 5</td>
</tr>
<tr>
<td>2018 ROBOCON</td>
<td>First Prize: 1</td>
</tr>
<tr>
<td>ROBOMASTER: 2018 Robomasters Contest</td>
<td>Second Prize: 1</td>
</tr>
<tr>
<td>2018 The 1st National University Robotics Innovation Contest</td>
<td>First Prize: 1</td>
</tr>
<tr>
<td>9th Chinese Mathematics Competitions</td>
<td>First Prize: 1, Third Prize: 1</td>
</tr>
<tr>
<td>China College Students Computer Design Competition in 2018</td>
<td>First Prize: 8, Second Prize: 10, Third Prize: 2</td>
</tr>
<tr>
<td>2018 Chinese College Students Computer Game Competition and The 12th China Computer Game Championship</td>
<td>First Prize: 9, Second Prize: 6, Third Prize: 3</td>
</tr>
<tr>
<td>National Undergraduate Mathematical Modeling Contest</td>
<td>First Prize: 1, Second Prize: 7, Third Prize: 7</td>
</tr>
<tr>
<td>4th National Safety Science and Engineering College Students Practice and Innovation Works Competition</td>
<td>First Prize: 1, Second Prize: 1, Third Prize: 3</td>
</tr>
<tr>
<td>2018 5th National College Students Concrete Material Design Competition</td>
<td>Special Prize: 1, First Prize: 1</td>
</tr>
<tr>
<td>13th National Collegiate Smart Car Race Finals</td>
<td>First Prize: 1</td>
</tr>
<tr>
<td>2018 “Siemens Cup” China Intelligent Manufacturing Challenge National Finals</td>
<td>Second Prize: 3, Third Prize: 1</td>
</tr>
<tr>
<td>2018 International Contest of innovAtioN</td>
<td>First Prize: 1, Second Prize: 3, Third Prize: 5</td>
</tr>
<tr>
<td>2018 11th Higher Education Cup National Undergraduate Advanced Mapping Technology and Product Information Modeling Innovation Competition</td>
<td>First Prize: 1, Second Prize: 6, Third Prize: 2</td>
</tr>
<tr>
<td>2018 National English Competition for College Students</td>
<td>First Prize: 8, Second Prize: 72, Third Prize: 111</td>
</tr>
<tr>
<td>2018 11th National University Energy Conservation and Emission Reduction Competition</td>
<td>First Prize: 4, Third Prize: 3</td>
</tr>
<tr>
<td>2018 National Student Computer System Capability Challenge</td>
<td>Third Prize: 1</td>
</tr>
<tr>
<td>2018 7th National Metallographic Skills Competition for College Students</td>
<td>First Prize: 1, Second Prize: 1, Third Prize: 1</td>
</tr>
<tr>
<td>2018 National Undergraduate Chemistry Laboratory Tournament</td>
<td>Third Prize: 1</td>
</tr>
<tr>
<td>2018 11th National College Student Information Security Contest</td>
<td>Third Prize: 1</td>
</tr>
</tbody>
</table>

Innovation and Entrepreneurship Education
International Cultivation of Students

USTB carries out in-depth international exchanges and cooperates closely with high-level overseas universities, making full use of high-quality educational resources to promote the international training of students and delivers practical benefits to students. We have constructed a diversified multi-level "overseas learning and exchange platform" for students, including inter-collegiate exchanges, joint training, degree study and study abroad programs, so as to further the international training of students. We have constructed a diversified multi-level "overseas learning and exchange platform" for students, including inter-collegiate exchanges, joint training, degree study and study abroad programs, so as to further the international training of students.

International Teaching System

With the aim of cultivating students' international vision and promoting intercultural communication, USTB has constructed a layered and multi-environment English curriculum system, organized summer English camps, and invited foreign experts and scholars to our university and set up courses with English as the instructive language.

2018 Undergraduate Students Overseas Exchange

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Number of New Admissions</th>
<th>Master's Degree Students</th>
<th>PhD Students</th>
<th>Senior Advanced Student</th>
<th>Chinese Language Students</th>
<th>Short-term Students</th>
<th>Total</th>
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<tbody>
<tr>
<td>Australia</td>
<td>17/18</td>
<td>336</td>
<td>336</td>
<td>160</td>
<td>8</td>
<td>63</td>
<td>996</td>
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<tr>
<td>China</td>
<td>49</td>
<td>146</td>
<td>230</td>
<td>102</td>
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<td>529</td>
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<tr>
<td>Denmark</td>
<td>122</td>
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<td>65</td>
<td>9</td>
<td>8</td>
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<td>France</td>
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<tr>
<td>Japan</td>
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<td>4</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
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<td>Korea</td>
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<td>USA</td>
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<td>134</td>
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<td>UK</td>
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<tr>
<td>Germany</td>
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<td>25</td>
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2018 Overseas Programs for Postgraduate Students

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<tr>
<th>Category</th>
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<td>Joint Training of Doctoral Students</td>
<td>42</td>
<td>CSC (China Scholarship Council) and State-sponsored Projects</td>
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<tr>
<td>PhD Students Participating in International Collaboration</td>
<td>19</td>
<td>CSC (China Scholarship Council) and State-sponsored Projects</td>
</tr>
<tr>
<td>Doctoral Students Participating in International Collaboration</td>
<td>49</td>
<td>Supported by USTB Innovative Talents Training Program</td>
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<tr>
<td>Joint Training of Doctoral Students</td>
<td>24</td>
<td>Supported by USTB Innovative Talents Training Program</td>
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2018 International Student Profile

<table>
<thead>
<tr>
<th>Category</th>
<th>Undergraduate</th>
<th>Master’s Degree</th>
<th>PhD</th>
<th>Senior Advanced Student</th>
<th>Chinese Language</th>
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<td>160</td>
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<td>Chinese Government Scholarship</td>
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<tr>
<td>Self-funded Student</td>
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2018 International Student Freshmen Profile

<table>
<thead>
<tr>
<th>Category</th>
<th>Undergraduate</th>
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<th>Senior Advanced Student</th>
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<td>134</td>
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<td>Foreign Government Scholarships</td>
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<td>&quot;Belt and Road Initiative&quot; Scholarship in Beijing</td>
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<td>Self-funded Student</td>
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</tbody>
</table>
USTB has a fine tradition of advocating athletics. Since its establishment, the vigorous development of nationwide fitness program has led to many accomplishments in athletics sports. USTB has been continuously innovating the contents and methods of PE teaching, offering 52 physical education courses, organizing rich and colorful sports activities for all people, comprehensively advancing the “sunshine sports program”. Guided by scientific theory, USTB continues to strengthen the construction of high-level sports teams, and has obtained excellent results in many competitive events in 2018.

Gong Lijiao
Women’s Shot Put Champion in London Track and Field World Championship
Business Administration Undergraduate Alumni 2007

2018 Physical Education Courses

2018 Student Competition Results

2018 Team Competition Results
USTB has taken the goal of addressing the country’s needs and leading industrial development as its responsibility, promoting scientific and technological innovation and the commercialization of research findings. USTB contributed many “firsts” in China’s history of science and technology. In recent years, USTB has been holding fast to the strategy of innovation-driven development, promoting the research of technological systems and operational mechanisms in pursuit of significant scientific breakthroughs, and moving ahead with cross-synergy and integration, striving to achieve results in key areas, and thus making positive contributions to the building-up of an innovation-oriented country.

Historical “Firsts”
USTB has been created many “firsts” in China. In the first 10 years of the “211 Project”, it won 4 first prizes for the State Scientific and Technological Progress Award, and ranked first among universities in China.

World’s first arc continuous caster
Developed the housing material for the first satellite, Dong Fang Hong I in China
Produced the first home-made large-sized robot in China

2014-2018 Scientific Research Awards

<table>
<thead>
<tr>
<th>Award</th>
<th>Prize</th>
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<tr>
<td>State Natural Science Award</td>
<td>Second Prize: 2</td>
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<tr>
<td>State Technological Invention Award</td>
<td>Second Prize: 4</td>
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<tr>
<td>State Science and Technology Progress Award</td>
<td>First Prize: 1, Second Prize: 10</td>
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<td>Ho Leung Ho Lee Foundation Science and Technology Progress Award</td>
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<tr>
<td>Provincial and Ministerial Science and Technology Awards</td>
<td>Grand Prize: 2, First Prize: 76, Second Prize: 105, Third Prize: 87, Contribution Award: 3</td>
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2014-2018 Academic Papers and Patents

Academic Papers

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<th>Year</th>
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Patents

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<th>Year</th>
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<th>2016</th>
<th>2017</th>
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<td>116</td>
<td>131</td>
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</table>
Professor Xianran Xing and Professor Jun Chen’s group published their research results in the top international academic journal Science.

Professor Xianran Xing and Professor Jun Chen’ s group proposed a new concept of “interphase strain” to fabricate thin films with giant ferroelectric polarization, which makes an important progress in the field of ferroelectricity and negative thermal expansion. On August 3, 2018, the results were published in the top international academic journal Science. Dr. Linxing Zhang is the first author of this paper. Professor Xianran Xing and Professor Jun Chen are the corresponding authors. This work was a joint study with international cooperation from the University of Texas at Dallas, Tel Aviv University in Israel, St Andrews University in the United Kingdom, Tsinghua University and the Chinese Academy of Sciences.

Research results of professor Lv Zhaoping’s group were published in the top international academic journal Nature.

Professor Zhaoping Lv’s group proposed a new methodology for design of metals with high strength and high plasticity. On November 14, 2018, the research work was published in Nature, a leading international academic journal. This is the second time that Professor Lv Zhaoping’s group published their works in this journal since 2017. Professor Lv Zhaoping is the corresponding author of this work. His doctoral students including Mr. Lei Zhifeng, Dr. Liu Xiongjun, and Prof. Wu Yuan also contributed equally to the paper. The research work was conducted jointly with the Max Planck Iron Institute in Germany, the Chinese Academy of Sciences, Chongqing University, Zhejiang University, Oak Ridge National Laboratory and Tennessee University in United States.

Fundamental Researches on Interface Modulation and its Applications of One-Dimensional Zinc Oxide

Leader: Zhang Yue
Award: The Second Class of National Natural Science Award

The project develops a series of nanomaterials synthesis technologies, including direct thermal oxidation of metals and laser limited patterning fabrications, proposes interface energy induced growth of one-dimensional zinc oxide structures, establishes a new method of an interface multi-field coupling effect to control the behavior of carriers and electrons, develops a variety of novel field emission cold cathodes and functional micro-nano devices, and applies to advanced national defense equipments.

Innovation and Industrialization of Key Technologies for Recycling Strategic Metals

Leader: Zhang Shengen
Award: National Invention Prize (Second Rank)

The project has invented Non-cyanogens Wet Process for Green Recycling precious metals, direct electrolysis of high-value alloys, preventing pollution from heavy metals etc. Strategic metals can be greatly recycled from urban mineral. The project has been granted 2 US patents, 25 China Invention patents and 28 China Utility Model patents. 2 PCT have been applied and 36 papers have been published also. Strategic Metal Recycling Technologies have been promoted to the Leading International Level. The largest recycled precious metal production line in China has been built. In the past three years, the line created 4.278 billion RMB of new sales and 732 million RMB of new profits, reduced mining and carbon by 52.35 million tons and 213.9 million tons separately, saved energy and water by 0.56 million tons and 116 million tons separately.

In 2018, USTB won national science and technology awards for 7 projects. Among them, USTB was solely responsible for 3 projects and collaborated in 4 projects. The total number of awards ranked USTB 8th among Chinese universities.

- 3 Projects Led by USTB
- Participation in 4 Collaborative Projects

USTB Won 7 National Science and Technology Awards In 2018
USTB actively promotes the close integration of research, development and production, speeding up the transformation and industrialization of scientific and technological achievements. The university plays full play to the advantages of science and technology, and actively cooperates with government departments, scientific research institutions, and enterprises and public institutions, continuing to expand social services and tap their potential, promoting industrial upgrading and serve regional economic growth.

### Institute of Coastal Collaborative Innovation Research

The institute actively responds to the national strategy of innovation-driven development, pursuing the goal of promoting the integration of research and development and production and accelerating regional collaborative innovation. The institute has scientific and technological achievements. With institutional mechanism innovation as the core, the institute builds an innovative new system of talent-research industry. Meanwhile, it builds a synergetic innovation zone for the development of coastal regional economy through scientific planning and focused construction of the institute. The institute's research institutes include:

- **Guangzhou New Materials Research Institute**
- **Yantai Industrial Technology Institute**
- **Foshan Research Institute**
- **Pinggu Institute of Biological Agriculture**

### Guangzhou New Materials Research Institute

Focusing mainly on the fields of Advanced Material Industry, aiming at collaborative production through a system of innovation and entrepreneurship, which constructs “Four in one” -- talents, scientific research, industry and finance, realizing the integration and coordinated development of education, science and technology and industry. New, low technology innovation centers and one transformation base of scientific and technological achievements have been built. The innovation institute has been involved in the implementation of more than 30 scientific and technological enterprises, and has been building up, along with an Advanced Material Industry Investment company, an Innovation alliance among Guangdong, Guangzhou and Meizhou Bay Area has been established.

### Yantai Industrial Technology Research Institute

Making full use of USTB's resources of educational, scientific and technological innovation and talents in the field of equipment manufacturing, new material, marine engineering and nuclear power, this institute promotes a new innovation and entrepreneurship system with the participation of the government, the industry and the research. USTB has built nine technological innovation centers, one transformation base of scientific and technological achievements, implementation of 16 national projects, two high-tech enterprises, and joined the Shandong Nuclear Power Material and Equipment Innovation Center as one of the first batch of manufacturing innovation centers in Shandong Province (Yantai is so far the only one).

### Foshan Research Institute

Foshan-City mainly focuses on the industrial transformation and training of talents, utilizing industrial-research cooperation and multi-level personnel training. Close and extensive cooperation has been established in the fields of high-quality stainless steel, special coatings and coating materials, machinery and equipment, achieving the organic integration of talent training, technology development and industrial development, which provides valuable experience to building up new innovation and entrepreneurship system.

### Pinggu Institute of Biological Agriculture

The Pinggu Institute pushes the boundaries of cutting-edge international research in the field of biology and agriculture, and is devoted to crop breeding, one-genome manipulation, microorganisms, plant biotechnology, biological analysis, and bio-based functional materials and environmental color analysis, etc., as well as the application of every angle of them. The institute strives to develop major scientific and technological innovations and transform them into applications, so as to integrate the city and local governments, to combine theoretical research and technological application and to achieve “Three in one” – politics, production, education research and application, along with building up a center of scientific and technological innovation concerning “Agricultural Massive health” and transformation of achievements.

### USTB actively promotes the close integration of research, development and production, speeding up the transformation and industrialization of scientific and technological achievements. The university plays full play to the advantages of science and technology, and actively cooperates with government departments, scientific research institutions, and enterprises and public institutions, continuing to expand social services and tap their potential, promoting industrial upgrading and serve regional economic growth.
USTB was the first Chinese university to establish a cooperative relationship with a foreign university after the reform and opening-up. In recent years, USTB has been adhering to the principle of pursuing global outreach and building deep alliances, following innovative ideas for international, Hong Kong, Macao and Taiwan exchanges and cooperation, and form an all-round, multi-level, wide network focused on opening to the world, and promoting student and teacher exchanges, so as to make USTB a strong international university.

**A Comprehensive Global Network**

USTB focuses on improving the quality and efficiency of its international network, so as to build strong partnerships with other world-class universities. USTB has signed cooperation agreements with more than 180 world-renowned institutions such as RWTH Aachen University in Germany, Oak Ridge National Laboratory in the United States and Oxford University in the United Kingdom. Among them, it has established key strategic, cooperative relationships with 20 high-level universities such as RWTH Aachen University in Germany, Tohoku University in Japan and McMaster University in Canada. USTB focuses on high-level cooperation. Joint research centers/laboratories have been set up with Tata Steel and Tohoku University. Joint projects have been carried out with the University of Texas Arlington in the United States. Partnerships have been made with the University of Birmingham in the United Kingdom. USTB focuses on high-level cooperation. Joint research centers/laboratories have been set up with Tata Steel and Tohoku University. Joint projects have been carried out with the University of Texas Arlington in the United States. Partnerships have been made with the University of Birmingham in the United Kingdom.

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**Cooperation and Exchange with Hong Kong, Macao and Taiwan**

USTB promotes academic exchange & cooperation with Hong Kong, Macao and Taiwan institutions that covers a wide range of fields and emphasizes practical results.

**Partner Institute**
- Tsinghua University, Fudan University, and other 26 institutions, exchange over 500 people per year
- Cross-strait university alliance for innovation and entrepreneurship, 3 Taiwan Universities + 6 Mainland Universities

**Confucius Institute of Creative Industry Technology**
- The Confucius Institute of Creative Industry Technology at USTB - De Montfort University of England has always adhered to the development concept of concentrating on advantages, digging in depth, creating innovation and spreading influence, and has actively carried out various activities such as Chinese language lessons, cultural and academic exchanges.

**Educational Cooperation and Exchange**
- Joint Research Funding Scheme and Multi-lateral Discussion Mechanism
- Personal Training Cooperation Project: exchanges visits, summer courses, etc. with 20+ Taiwanese universities

**Branding Activities**
- Summer exchanges between teachers and students across the Taiwan Strait Beijing-Hong Kong Youth Exchange Program, etc.

**Subject Innovation and Intelligence Introduction Program**
USTB concentrates superior resources to introduce foreign experts, and built five Overseas Expertise Introduction Center for Discipline Innovation ("111 Center") and several national, provincial and ministerial-level intelligence projects for a diversified and sustainable intelligence introduction system.

**New Cooperative Agreements Signed in 2018**
- Trinity College, Dublin, Ireland
- The University of Adelaide
- University of Western Sydney
- Hiroshima University
- State University of New York at Albany
- Sripakom University
- University of Missouri Kansas City
- Bernard M. Baruch College
- Eurasian Pacific University Alliance
- Biaoz University of Science and Technology, Pakistan
- University of Rhode Island
- University of Oulu
- University of Essex

**2018 International Conferences Hosted 9**

**Exchanges between visiting experts and scholars**

**International Collaboration to Support the “Belt & Road” Initiative**

Through deepening reforms, USTB has tapped into its inherent potential of research services to stimulate cooperation and exchanges. This has led to talent cultivation; the integration of resources for scientific research and common access; and open channels and communication, serving the growing Belt and Road Initiative.
66 years have passed since its foundation, USTB has trained more than 200,000 alumni. Most of them have become pillars of the Chinese politics, economy, science and technology, and education, especially in the metallurgical and materials industries. USTB is known as the “cradle of iron and steel engineers”. The USTB Alumni Association was established in April 1987. At present, there are 59 Alumni Clubs (49 Local Alumni Associations, 6 Professional Alumni Associations, 3 Club Alumni Associations and 1 Special Interest Alumni Association) throughout the country, including the Hong Kong Special Administrative Region, North America, Europe, Vietnam and other places.