Graduate School of Engineering
Faculty of Engineering
Hokkaido University
2008-2009

http://www.eng.hokudai.ac.jp/english/
A message from the Dean

Professor
Takashi Mikami

Foreword
The Graduate School of Engineering, Hokkaido University has been expected to foster human resources meeting social and industrial needs, and to contribute to the world as an excellent educational and research axis through its quality education and superior research. The School’s guiding principles stem from the University’s faith in education and can be characterized by the following phrases ─ Frontier spirit, Internationalization, All-round education and Practical applicability in engineering. Over a century has passed since the foundation of Hokkaido University as the Sapporo Agricultural College in 1876, and this fundamental faith has been respected and reflected in both educational and research activities at our School.

Education
The demand for graduate school education is not limited to the training of specialists as in the past. Current progress in worldwide internationalization and scientific cooperation requires that we also cultivate human resources with advanced knowledge, extensive intelligence and the highest ethical standards. As a result our graduate school was reorganized in 2005 and now provides 16 undergraduate courses in 4 departments and 15 fields of study for graduate level. In order to enhance the quality of education further, the Center for Engineering Education Development (CEED) was established in 2005 as a supporting organization. CEED consists of three programs, namely, Industry Collaborated Education, International Relations and Continuing Education.

As part of our contribution to the internationalized future, the School has been making efforts to accept more international students who will play a key role in leading advanced technology and promoting international mutual understanding. The English Graduate Program in Socio Environmental Engineering has been expanded to cover a wider area in engineering. The Advanced Education Program for the Career Development of Foreign Students from Asia, namely “Hokkaido University Frontier Program” has been started for developing human resources to lead internationally competitive manufacturing.

Some of our professors are also involved in the Hokkaido University Public Policy School. The school was founded in 2005 as a cooperative alliance with the School of Law and the Graduate School of Economics and Business Administration. It aims to bring up professionals who can make political decisions and exert their legislative ability.

Research
The faith in education inherited from the Sapporo Agricultural College is also applied in research. For solidarity with and contribution to society, we have been sharing our intellectual heritage as well as the latest technology with the public. To alleviate difficulties faced by human being arising from our natural and social environments, we are convinced that our engineering should be directed towards preserving the social environment, ambitious for establishing new industries and shaping the future of world civilization, and innovative for advance in technology. Our specialized fields include nanotechnology, life sciences, environment, energy, materials, mechanics, infrastructure, oceanography and cosmology. In addition, as one of the leading universities located in a cold region our Graduate School provides a research program concerned with cold region engineering and policy.

In all research fields, it is extremely important to secure excellent young researchers and instructors. By providing subsidies for overseas travel and financial support for research projects, we hope to further promote our research activities and ensure their continuity.

Afterword
Contributing to society is the most important mission for us. By sharing our intellectual heritage and innovative technology with society, we are doing our best to fulfill our responsibility as an axis of intelligence.
1924 The Faculty of Engineering was established.
1925 Departments of Electrical Engineering, Mechanical Engineering, Civil Engineering and Mineral Resources Development Engineering were established.
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1929 Department of Applied Chemistry was established.
1939 Department of Applied Chemistry was established.
1942 Department of Metallurgical Engineering was established.
1948 Department of Architectural Engineering was established.
1949 In accordance with the National School Establishment Law, the Faculty of Engineering was established anew with seven departments. The 25th Anniversary of the Faculty of Engineering was celebrated.
1953 The Graduate School of Engineering was established under a new system with Divisions of Civil Engineering, Mineral Resources Development Engineering, Mechanical Engineering, Electrical Engineering, Applied Chemistry, Metallurgical Engineering and Architectural Engineering.
1957 Department of Sanitary Engineering was established.
1958 Department of Precision Engineering was established.
1960 Departments of Chemical Process Engineering and Electronic Engineering were established.
1961 Division of Sanitary Engineering was established.
1962 Department of Mechanical Engineering II and Division of Precision Engineering were established.
1964 Department of Applied Physics, Divisions of Electronic Engineering and Chemical Process Engineering were established.
1966 Division of Mechanical Engineering II was established.
1967 Department of Nuclear Engineering was established.
1968 Division of Applied Physics was established.
1971 Division of Nuclear Engineering was established.
1973 Division of Information Engineering was established.
1974 The 50th Anniversary of the Faculty of Engineering was celebrated.
1979 Division of Biomedical Engineering was established.
1987 Department of Information Engineering was established.
1994 Divisions of Metallurgical Engineering, Applied Chemistry and Chemical Process Engineering were reorganized as Divisions of Materials Science and Engineering and Molecular Chemistry. Departments of Metallurgical Engineering, Applied Chemistry and Chemical Process Engineering were reorganized as Departments of Materials Engineering and Applied Chemistry.
1995 Divisions of Precision Engineering, Electrical Engineering, Information Engineering, Electronic Engineering and Biomedical Engineering were reorganized as Divisions of Systems and Information Engineering and Electronic and Information Engineering. Departments of Precision Engineering, Electrical Engineering, Information Engineering and Electronic Engineering were reorganized as Departments of Information Engineering, Electronics Engineering and Systems Engineering.
1996 Divisions of Mechanical Engineering, Mechanical Engineering II, Applied Physics and Nuclear Engineering were reorganized as Divisions of Applied Physics, Quantum Energy Engineering and Mechanical Science. Departments of Mechanical Engineering, Mechanical Engineering II, Applied Physics and Nuclear Engineering were reorganized as Departments of Applied Physics, Nuclear Engineering and Mechanical Engineering.
1997 Divisions of Civil Engineering, Architectural Engineering, Sanitary Engineering and Mineral Resources Development Engineering were reorganized as Divisions of Structural and Geotechnical Engineering, Urban and Environmental Engineering and Environment and Resources Engineering. Departments of Civil Engineering, Architectural Engineering, Sanitary Engineering and Mineral Resources Development Engineering were reorganized as Departments of Civil Engineering, Architecture, Environmental Engineering and Mineral Resources Engineering.
1999 The 75th Anniversary of the Faculty of Engineering was celebrated.
2000 English Graduate Program in Socio-Environmental Engineering was established.
2004 Divisions of Systems and Information Engineering and Electronics and Information Engineering were abolished, and the Graduate School of Information Science and Technology was established.
2006 English Graduate Program in Socio-Environmental Engineering was expanded to cover fields outside the Socio-Environmental Engineering Group and renames itself the English Engineering Education Program.

Center for Engineering Education Development was established.

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English Engineering Education Program (e³ program)

This program has been admitting international students under various scholarships as well as self-supporting students from all over the world with an intention to produce the world leaders in engineering fields. The e³ program uses English as a medium of instruction for all courses and seminars and awards students a master/doctoral degree. The program consists of 11 divisions and curriculum-wise is divided into 7 subject groups:

- Field Engineering for Environment
- Engineering and Policy for Cold Regional Environment
- Field Engineering for Environment
- Mechanical and Intelligent System Engineering
- Materials Science and Engineering
- Built Environment

For more information, visit http://www.eng.hokudai.ac.jp/e3/

Advanced Education Program for the Career Development of Foreign Students from Asia (Hokkaido University Frontier Program)

This program aims to use the measures outlined below to develop individuals who can thrive on a global stage.

- Invite outstanding foreign students aspiring to work for Japanese companies in or outside Japan to join the master’s or doctoral programs of Hokkaido University Graduate School of Engineering as government-financed foreign students.
- Foster professional expertise to allow advanced development, world-class work-readiness competencies and global response skills for use in dealing with production and business in students’ respective countries. These competencies and skills are developed through practical professional education based on industry-academia cooperation, education in business Japanese/Japanese business practices and internships, in addition to ordinary graduate education.
- Help graduates find employment at Japanese companies in or outside Japan.

For more information, visit http://www.eng.hokudai.ac.jp/others/asia01/

Scholarships for Overseas Students

Scholarships available before coming to Japan: Japanese Government(MEXT) Scholarship

1) Embassy Recommendation

Recruiting covers all scholarship categories. However, because recruiting targets will differ by country and region, potential applicants should check closely with the Japanese Embassy in their own region.

2) University Recommendation

When applicants for graduate studies belong to universities, mainly which have concluded Inter-University Exchange Agreements with Hokkaido University, they can apply for the scholarship through Hokkaido University.

Hokkaido University President’s Fellowship

A current or alumni student of a university that has Inter-University Exchange Agreements with Hokkaido University can apply for this scholarship through his/her own university.

Scholarships available after coming to Japan:

After enrolling at a university in Japan, the student can apply for scholarships sponsored by the Japanese government or private organizations. The eligibility for application and the amount of allowance vary according to the organizations. The number of scholarships is also limited.
### Number of Staff

As of May 1, 2008

- **Teaching Staff**: 23.2% (102)
  - Professors: 23.2% (102)
  - Associate Professors: 22.8% (100)
  - Assistant Professors: 17.3% (76)
- **Non-Teaching Staff**: 28% (123)
- **Guest Professors**: 4.3% (19)
- **Guest Associate Professors**: 2.3% (10)
- **Guest Assistant Professors**: 0.5% (2)

Total: 439

### Number of Students

As of May 1, 2008

**Graduate Students**

- Doctoral (256)
- Master’s (870)
- Others (18): Research Students, Special Research Students, Special Auditors

**Undergraduate Students**

- 4th year (846)
- 3rd year (738)
- 2nd year (770)
- 1st year (726)

### Library Holdings

As of Mar. 31, 2008

- **Books (volumes)**
  - In Japanese: 145,404
  - In a Western Language: 138,764
- **Periodicals (titles)**
  - Total: 5,752

### Doctoral Degrees Conferred

As of May 1, 2008

- Grand Total: 1,746 (Since 1958), 1,457 (Since 1962)

### Budget

**Accounts**

<table>
<thead>
<tr>
<th>General Account</th>
<th>Amounts (Thousand yen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational Grants</td>
<td>922,983</td>
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<tr>
<td>External Sources</td>
<td></td>
</tr>
<tr>
<td>Grant-in-Aid for Scientific Research, etc.</td>
<td>1,625,348</td>
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<tr>
<td>University-Industry Affiliated Research, etc.</td>
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<tr>
<td>Total</td>
<td>4,136,765</td>
</tr>
</tbody>
</table>

Fiscal Year 2007

### Contact Us

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### Location of the Campus

Hokkaido University  
Faculty and Graduate School of Engineering  
Kita 13-2, Nishi-12, Nishi-ku, Sapporo, 060-0810, Hokkaido, Japan  
http://www.eng.hokudai.ac.jp/english/