The Strategic Management of Tohoku University

Tohoku University Action Plan: Inoue Plan 2007

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Yukihsa Kitamura
Executive Vice President
Tohoku University
Location of the City of Sendai

- Situated in North-East Japan
- Distance from Tokyo 350 km
- Travel time from Tokyo (by bullet train) 1hr 35m

Population of Sendai City

1,028,000

Founded in 1907 as the third Imperial University of Japan

《Principles》“Research First”, “Open Door”,
“Practice-Oriented Research and Education”
Research and Education Organization

Tohoku University

Undergraduate Schools
- Arts and Letters
- Education
- Law
- Economics and Management
- Science
- Medicine
- Dentistry
- Pharmaceutical Sciences
- Engineering
- Agriculture

Professional Graduate Schools
- Institute for Materials Research
- Institute of Development, Aging and Cancer
- Institute of Fluid Science
- Research Institute of Electrical Communication
- Institute of Multidisciplinary Research for Advanced Materials

Graduate Schools
- International Cultural Studies
- Information Sciences
- Life Sciences
- Environmental Studies
- Educational Informatics, Research Division/Education Division

Research Institutes
- Institute for Materials Research
- Institute of Development, Aging and Cancer
- Institute of Fluid Science
- Research Institute of Electrical Communication
- Institute of Multidisciplinary Research for Advanced Materials

Number of Students As of May 1, 2009

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate students</td>
<td>10,967</td>
</tr>
<tr>
<td>Graduate students (Masters Course)</td>
<td>4,224</td>
</tr>
<tr>
<td>Graduate students (Doctoral Course)</td>
<td>2,657</td>
</tr>
<tr>
<td>Total</td>
<td>17,848</td>
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</tbody>
</table>

WPI Advanced Institute for Materials Research (WPI-AIMR)

University Collaborating Institutions (11)

Inter-Department Institute for Education and Research (10)

Administration Bureau
University Library (4)
University Hospital
Arts and Letters
Education
Law
Economics
Science
Medicine
Dentistry
Pharmaceutical Sciences
Engineering
Agriculture

Law School
School of Public Policy
Accounting School
## Citations

<table>
<thead>
<tr>
<th>National Ranking</th>
<th>International Ranking</th>
<th>Field</th>
<th>Citations</th>
<th>Papers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>Materials Science</td>
<td>42,247</td>
<td>5,844</td>
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<tr>
<td>2</td>
<td>10</td>
<td>Physics</td>
<td>126,138</td>
<td>10,541</td>
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<tr>
<td>4</td>
<td>18</td>
<td>Chemistry</td>
<td>80,719</td>
<td>6,300</td>
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<tr>
<td>3</td>
<td>53</td>
<td>Engineering</td>
<td>15,478</td>
<td>3,477</td>
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<tr>
<td>4</td>
<td>65</td>
<td>all fields</td>
<td>459,194</td>
<td>42,261</td>
</tr>
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</table>

ISI Essential Science Indicators<sup>SM</sup>, January 1, 1999 – October 31, 2009
◇ Number of Students from China

- 608 students (as of May 1\textsuperscript{st} 2009)  45\% of total number of international students (1,346)

◇ Number of Visiting Research Fellows from China

- 305 researchers  - 19\% of total number of researchers (1,590) in 2008

◇ Academic Exchange Agreements with China

- 26 Agreements between Universities  - 19\% of total agreements (134) as of May 1\textsuperscript{st} 2009
- 60 Agreements on the Departmental Level  - 20\% of total agreements (304) as of May 1\textsuperscript{st} 2009

◇ Other

- Establishment of Tohoku University China Office in Beijing and a liaison office at the Institute of Physics, Chinese Academy of Sciences.
- Implementation of a Collaborative Education Program with Tsinghua University (Master’s degree possible)
- Additional exchange programs, such as the Summer Program, conducted in collaboration with several Chinese universities
Strategic Management of Tohoku University

- Intensifying International Competition
- Strengthening of University Functions / Roles
- External Valuation

Tohoku University

Formulation of Strategy \(\Rightarrow\) Inoue Plan 2007
(Tohoku University Action Plan)

Strategic Action \(\Rightarrow\) Reform of Governance (University Organization and Decision-Making Process)

Financial Situation
Efforts to Acquire Funds
Becoming a World-Class University

We aim to be ranked within the top 30 universities globally within the next 10 years

- Announcement of the Inoue Plan in 2007
- Annual Progress Review
- Revision of Action Plan according to the environment of the time.

Swift Action and Reform

Steady Progress

The Changing Environment
Inoue Plan 2007

Education | Research | Social Contribution | Campus Environment | Organization/Management

Office of the President
- Special Advisor to the President
- Project Team, Working Group, Task Force

Project / Planning  Plan

Action  Reform

President (Office of the President)

Check  Progress Management and Review

Executive Department
Planning and Implementation of Specific Measures

Do
Tohoku University: Educational System Reform

◇ Development of human resources capable of playing leading roles on the international stage (Liberal Arts Education)
  • Expansion of external English exams (TOEFL)
  • Expansion of Study Abroad and overseas Internship Programs etc.
  • Introduction of a Student Advisor system to support student learning
  • Introduction of lectures by ‘Professors Extraordinary’ aimed at passing on the essence of research

◇ Internationalization of Education
  • Selected for ‘Project for Establishing Core Universities for Internationalization’ (Global 30)

◇ Training high-level researchers capable of developing new fields of research (graduate level)
  • Enhancement of graduate education through collaboration with the International Advanced Research and Education Organization, the WPI Advanced Institute for Materials Research and Global COE

◇ Recruiting students with a ‘Scientific Mind’ (Admissions System)
  • Develop an admissions system for recruiting winners of the Science Olympiad and other students with world-class talent

◇ Career support and nurturing of young human resources capable of playing active roles in industry.
  • ILP Innovative Leaders Platform
Producing World-Class Research Results

Promotion of original, innovative interdisciplinary research

- Establish the Advanced Institute for Materials Research as a center for top-class international research
- Further adoption of world-leading Global COE Programs
- Promotion of interdisciplinary research on social issues
  - Brain Science, Humanities and Social Sciences, the Environment, Energy Science etc.
  - Launch of the Graduate School of Biomedical Engineering

Promotion of international collaborative research

- Make use of network connections with world-class universities and research institutes
  - APRU (Association of Pacific Rim Universities)
  - T.I.M.E. (Top Industrial Managers for Europe)
  - AEARU (The Association of East Asian Research Universities)
  -
Applying our Human and Intellectual Resources for the Benefit of Society

◇ Nurture human resources that can contribute to local industry
   • Active contributions that meet the needs of society
     ➢ eco-houses, disaster robots, clean energy, automobile industry etc.

◇ Promotion of the Science Park concept

◇ Regional Consortium
   • Active collaboration with public and private universities etc.

◇ Actively disseminate our research and educational achievements
   • Nationwide expansion of Science Cafe
   • Off-campus lectures by Distinguished Professors

◇ Endeavour to make our facilities open to the public
Establishing a World-Class Campus

Development of the Aobayama New Campus

- Establishing a University House, Guest House etc.

Environmental Conservation Efforts

- Introduction of an environmental management system aimed at creating an environmentally friendly eco-campus
- Steady implementation of the ‘Tohoku University plan to reduce greenhouse gas emissions’

Cut CO2 emissions by 10% between 2008 and 2012
(2% annual reduction) (average annual reduction of other universities = 1%)
Establishment of a strategic corporate management system
- Implement an international standard system of governance
- Ensure strict compliance

Secure the human resources needed to support international competitiveness
- Establishment of the ‘Research Professors’ system (tentative name)
  - Hiring would be contingent on obtaining a certain amount of outside funds.

Main established systems
- University Professor system
- Distinguished Professor system
- Professor Extraordinary system

Responding to international third-party evaluations
- First Japanese university to receive external valuation from the European University Association (EUA)

Promotion of Gender Equality

Establishment of a university fund
Strategic Action

Implementation of Strategy

Reform university organizational structure and decision-making process in order to implement strategy

 Establishment of Governance

It is absolutely vital to ensure that governance works
Establish strong leadership in executives responsible for managing the university

Secure knowledgeable leaders with exceptional management ability, and create an environment in which to implement strategy.

**Principle Established Initiatives**

- Election of the President by the President Election Committee (abolishment of internal / on-campus presidential elections)
- Development and organization of a specialist group to provide support in management decision-making, planning and execution
- Clarification of directions and orders from senior management
Strategic Distribution / Allocation

- Strategic allocation of personnel, resources and funds

Carry out university-wide management of personnel, resources and funds, while at the same time respecting departmental independence.

Implementation of Governance

- Principle Established Approaches
  - Implementation of system to allocate budget and personnel, at the discretion of the President
  - Evaluation of trustees, vice-president and department heads based on clearly defined mission statements
  - Establishment of Department Chair Meetings, periodic exchange of ideas and opinions with departments, dissemination of information via website etc.
“Our Path Toward Becoming a World-Class University”

Contributing to humanity by making continuous efforts to respond to the responsibilities of nation and society.