Student Education Programs

Tohoku University promotes the following educational programs with support from the Ministry of Education, Culture, Sports, Science and Technology (MEXT).

WISE Program (Doctoral Program for World-leading Innovative & Smart Education)

These five-year integrated doctoral programs make use of the world's most outstanding education and research capabilities, and are run in cooperation with outside organizations. In addition to fostering individuals with excellent doctorate degrees, this program also promotes efforts to create outstanding hubs where the development of talented individuals, exchanges and the creation of new joint research can be continually promoted.

Following the conclusion of the subsidy provided by the MEXT, the project has been sustained through Tohoku University's independent funding.

Year	Department	Program	Contents
FY2018 - FY2024	13 graduate schools and institutes, including the Graduate School of Medicine and Graduate School of Dentistry	Advanced Graduate Program for Future Medicine and Health Care	This program aims to foster excellent professionals who are capable of promoting interdisciplinary approaches to integrate medicine, healthcare, engineering, economics and social sciences in order to develop, implement and lead the next-generation of medicine – "Future Medicine supported by Data Science, Technology and Society (DTS)" that Tohoku University is proposing, and contribute to building a sustainable aging-friendly society where aged people are able to live self-sufficiently while maintaining their quality of life.
FY2018 - FY2024	10 graduate schools and institutes, including the Graduate School of Engineering and Graduate School of Information Sciences	WISE Program for AI Electronics	This program aims to drive the doctoral student to acquire the "vision" to examine all technological layers in AI Electronics (AI spin device "hardware layer", AI data science "software layer", and AI processor "architecture layer") and all spaces from the "physical space" to "cyber space", and to gain practical skills for implementing solutions for social problems and the creation of new values taking into consideration business-academia collaboration. As a result, this program has the potential to produce talented doctors who can produce continuous innovations by combining technologies from different fields.
FY2019 -FY2025	11 graduate schools and institutes, including the Graduate School of Science and Graduate School of Engineering	WISE Program for Sustainability in the Dynamic Earth	In order to build a safe, secure, and sustainable society, we will develop talented individuals who are able to respond to a variety of risks, including not only those of an environmental nature but also information, social, and economic factors. They will possess cutting-edge knowledge and practical skills, endowing them with a seamless understanding of everything from the earth to humankind.

*Tohoku University's original program

FY2022 -	Graduate School of Engineering, Graduate School of Science, and 3 other departments	Graduate Program for Green and Digital Innovation	By combining specialized education and doctoral research with informatization and technological socio-engineering education, we nurture human resources with originality, practical skills, and a bird's-eye view that can contribute to the realization of an environmentally harmonious and carbon-neutral society.

The Program for Leading Graduate Schools

To guide excellent students to become global leaders able to work in the wide industry-university-government sectors, this program constructs and develops credit programs that guarantee interdisciplinary world-class education, supports far reaching reforms of postgraduate education and promotes the forming of graduate schools worthy of a top educational institution.

Year	Department	Program	Contents
FY2012 - FY2018	Graduate School of Engineering, Graduate School of Science, Graduate School of Art and Letters, International Research Institute of Disaster Science etc., 12 graduate schools and institutes	Inter-Graduate School Doctoral Degree Program on Science for Global Safety	This program aims to produce leaders for global safety capable of contributing in protecting human lives, society and industry from global disasters such as the Great East Japan Earthquake, not only in the academic field, but also in other fields such as global enterprises and international organizations.
FY2013 - FY2019	Graduate School of Engineering, Graduate School of Science etc., 11 graduate schools and institutes	Interdepartmental Doctoral Degree Program for Multi-dimensional Materials Science Leaders (MD Program)	The objective of the MD Program is to cultivate human resources through creating leaders whose understanding of materials is based on a diverse range of perspectives and a firm grasp of the fundamentals of materials science. When combined with extensive research experience, these leaders will be able to envision how their concepts of materials for the future will change society and to bring about those changes.

Next-Generation Cancer Professional Training Plan

The purpose is to further promote cancer treatment in Japan through the training of outstanding cancer professionals who can, in line with the fourth term of the Basic Plan to Promote Cancer Control Programs (Phase 4), address emerging issues in the field of cancer treatment, contribute to the promotion of cancer prevention, and develop new treatment methods.

Year	Department	Program	Contents
FY2023 - FY2028	Graduate School of Medicine	Tohoku Next-Generation Cancer Professional Training Plan	This program seeks to ameliorate and solve issues related to cancer treatment in the six prefectures of the Tohoku region and Niigata. It develops students' knowledge, skills, and ability to advance research, which are all necessary to address emerging issues and to carry out the latest cancer treatments. The program, in collaboration with other organizations, trains cancer specialists who can deal with the various medical necessities that may arise in personalized cancer care, the treatment of rare and intractable cancers, and interdisciplinary fields related to cancer.

MEXT Project for the Establishment of Core Centers for Advanced Medical Human Resource Development

While promoting work style reform, this government program aims to produce excellent doctors with knowledge and skills related to clinical training and research activities. To do so, it will ensure that medical students and graduate students have opportunities to participate in both effective clinical training and research activities at the University Hospital. The program promotes clinical research by utilizing education and research assistants and strengthening research systems. In this way, the program will contribute to the development of Japan's medicine, medical care, and research capabilities.

Year	Department	Program	Contents
FY2024 - FY2029	University Hospital	Advanced Medical Human Resource Development Core Center for the Data Science-driven Creation of New Treatments	This program will take advantage of AI, as well as the time and energy saved through its use, to produce research that contributes to the provision of improved medical care. It will incorporate the data-driven 'Plan, Do, Check, Act' (PDCA) cycle of continuous improvement to train and produce highly skilled medical talent who can create new medical treatments informed by data science.

(FY = Fiscal Year/ Financial Year)

Tohoku University is also implementing the following initiatives on its own. Initiatives for Distinctive Education

In order to develop global human resources, the Division for International Joint Graduate Programs provide various types of support, such as long-term overseas training programs under the joint guidance of overseas partner institutions.

Year	Department	Program	Contents
FY2015 -	Advanced Graduate School	International Joint Graduate Programs	The Division for International Joint Graduate Programs has selected fields utilizing the strengths of the university, allowing it to lead the global community and contribute to vital human development; at the same time, it implements joint education through spreading Tohoku University's expertise beyond the bounds of the department and strong collaboration with influential universities overseas, with the aim of contributing to and cultivating global talent.

In order to promote the training of young researchers, the DIARE selects outstanding students as "DIARE master's course students" and "DIARE doctoral course students", and provides financial aid and an improved research environment.

Year	Department	Program	Contents
FY2007 -	Division for Interdisciplinary Advanced Research and Education (DIARE), Advanced Graduate School	DIARE master's course DIARE doctoral course	The DIARE is active in the international arena, and provides university-wide education and research support to develop young world-class researchers equipped with distinguished knowledge and the ability to create "comprehensive intelligence" in new interdisciplinary research areas.

Endowed Chairs and Research Divisions

Endowed Chairs and Research Divisions are established to facilitate and enhance research and education at Tohoku University through contributions from businesses and other organisations. Endowed Chairs are organized at the graduate schools and Endowed Research Divisions are organized at the research institutes as listed below.

(as of May 1, 2025)

Endowed Chairs

Year	Graduate School	Chair	Duration	
FY 2004	Graduate School of Environmental Studies	Endowed Division of Environmental Resource Cycle Course	Apr. 2004-Mar. 2026	Phase 8
FY 2009	Graduate School of Medicine	Department of Advanced Ophthalmic Medicine	Apr. 2009-Mar. 2027	Phase 6
FY 2012	Graduate School of Medicine	Department of Retinal Disease Control	Apr. 2012-Mar. 2027	Phase 5
FY 2017	Graduate School of Medicine	Department of General Practitioner Development	Oct. 2017-Sep. 2026	Phase 3
FY 2018	Graduate School of Agricultural Science	Laboratory of Fermentation Microbiology	Oct. 2018-Mar. 2029	Phase 2
FY 2020	Graduate School of Environmental Studies	Innovative Analytical Pyrolysis	Apr. 2020-Mar. 2026	Phase 2
FY 2021	Graduate School of Science	Endowed Research Laboratory of Dimensional Integrated Nanomaterials	Nov. 2021-Oct. 2027	Phase 2
FY 2022	Graduate School of Medicine	Department of Preemptive Cardiovascular Medicine	Apr. 2022-Mar. 2027	Phase 2
	Graduate School of Medicine	Department of Community Medicine of Hearing Loss	Oct. 2022-Sep. 2026	Phase 2
	Graduate School of Medicine	Development of ICT Regional Alliance for Heart Failure	Jan. 2023-Dec. 2027	
FY 2023	Graduate School of Environmental Studies	Course for Environmental harmony design of hard materials	Apr. 2023-Mar. 2026	
FY 2024	Graduate School of Medicine	Department of Regional Alliance for Promoting Liaison Psychiatry	Apr. 2024-Mar. 2026	
	Graduate School of Agricultural Science	Laboratory of Reproductive Technology (Repro-SOLEIL)	Apr. 2024-Mar. 2027	
	Graduate School of Medicine	Division of Gastroenterological Medical Innovation	Jul. 2024-Mar. 2027	
	Graduate School of Biomedical Engineering	Medical Device Innovation	Jan. 2025-Dec. 2027	
FY 2025	Graduate School of Medicine	Department of Sports Medicine and Reconstruction of Motion Function	Apr. 2025-Mar. 2027	

Endowed Research Divisions

Year	Institute / Center	Research Division	Duration	
FY 2012	Center for Northeast Asian Studies	Department of The Uehiro Tohoku Historical Materials Research	Apr. 2012-Mar. 2027	Phase 3
	International Research Institute of Disaster Science	Earthquake induced Tsunami Risk Evaluation	Apr. 2012-Mar. 2027	Phase 5
FY 2016	Tohoku Medical Megabank Organization	Department of Traffic and Medical Informatics in Disaster	May 2016-Mar. 2028	Phase 5
FY 2019	International Research Institute of Disaster Science	Earthquake Disaster Prevention for Urban Areas	Nov. 2019-Oct. 2025	Phase 2
FY 2021	University Hospital	Advanced Diagnosis and Treatment for Subarachnoid Hemorrhage	Apr. 2021-Mar. 2026	Phase 2
FY 2022	University Hospital	The Endowed Research Department of Human Resource Development for Advanced Medical Solution	May 2022-Apr. 2028	Phase 2
	University Hospital	Development and Discovery of Interventional Therapy	Oct. 2022-Sep. 2025	
FY 2023	Research Center for Accelerator and Radioisotope Science	Division of Diabetes and Nutrition	Apr. 2023-Mar. 2026	
	Frontier Research Institute for Interdisciplinary Sciences	Nanomaterials process data science	Jan. 2024-Dec. 2026	
FY 2024	Frontier Research Institute for Interdisciplinary Sciences	Interdisciplinary platform for advanced health sensing	Nov. 2024-Oct. 2026	
FY 2025	International Research Institute of Disaster Science	Uehiro Practical Disaster Preparedness Study Division	Apr. 2025-Mar. 2035	

(FY = Fiscal Year/ Financial Year)