

Tsinghua
Celebrates 110th
Anniversary
(1911~2021)





Tsinghua University holds 110th Anniversary Ceremony

Tsinghua University held its 110th anniversary ceremony at New Tsinghua Xuetang on April 25. The theme of the anniversary celebration was "Strive for Excellence; Innovate for the Future". Alumni, teachers, students and friends from around the world watched the conference online.

Global universities seek more openness, integration, and resilience to address global issues at GFUP 2021

Tsinghua University hosted the Global Forum of University Presidents (GFUP 2021) on April 24, the eve of its 110th anniversary, bringing together university leaders from all around the world to discuss the future development of higher education and the evolving mission of universities during periods of rapid change. The theme of the Forum was "Innovate for the Future: Vision and New Mission of Universities."

The GFUP 2021 brought together leaders and representatives from more than 330 universities worldwide, 77 international organizations, academic institutions, university alliances and industry partners. Likewise, over 300 representatives from leading Chinese universities and high schools attended the Forum on site.













Chinese President Xi Jinping visits Tsinghua University ahead of its 110th anniversary

Chinese President Xi Jinping visited Tsinghua University on April 19, ahead of its 110th Anniversary.

Xi visited the Academy of Arts and Design, a laboratory on imaging and intelligence, an exhibition on the university's key education and scientific research achievements, and a gymnasium.

He learned about Tsinghua's reform, human resources development, innovation in education and scientific research, as well as the university's role in serving national development, before meeting representatives of the faculty and students at a symposium and delivering a key speech.



ANNIVERSARY MESSAGE

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Strive for Excellence; Innovate for the Future

— Message for the 110th Anniversary of Tsinghua University President Qiu Yong & Chairperson of the University Council Chen Xu

The effervescence of April brings budding flowers and green leaves. On behalf of the University, we extend our greetings to all period to become an outward-looking, globally-engaged university. Through its wealth of experience and history as an institution, Tsinghua has formed its own deep culture and strong tradition of supporters of Tsinghua and its development, we express our heartfelt gratitude.

Eleven decades ago, in a time fraught with deep civil unrest and international aggression, Tsinghua was born. Since its establishment, self-improvement for the betterment of the nation, and an unyielding character, have been deeply ingrained into the mindset of Tsinghua people. Adhering to the ideal of saving the country through promoting scientific development, Tsinghua, starting as a preparatory school for those students who were sent by the government to study in the United States, was transformed into a university for the people – an autonomous modern university for education and learning. Since the establishment of the People's Republic of China, Tsinghua became a multidisciplinary

technical university, embracing the spirit of the times in the opening up and reform period to become an outward-looking. globally-engaged university. Through its wealth of experience and history as an institution, Tsinghua has formed its own deep culture and strong tradition of of "Self-discipline and Social Commitment", its ethos of "Actions Speak Louder Than Words", its style of "Rigorous, Diligent, Truthseeking, and Creative", and its spirit of "Dedication to the Country and Pursuit of Excellence" define Tsinghua people, shaping their values, quality and essence. They make our community what it is. As generations of Tsinghua people contribute their vital knowledge, energy and spirit for the motherland and the people, the University, with its strong roots and foundations, progresses along the road to being a worldclass university with Chinese characteristics.

For Tsinghua, education has always been placed at the heart of all its endeavors. In 1911, the Charter of Tsing Hua Imperial College stipulated the "cultivation of all-

round talents and enhancing of national strength". University President Mei Yigi emphasized the importance of faculty's quidance in the development of students' moral character and learning, the "development of the whole individual", and being "general knowledge-focused." After the People's Republic of China was founded, University President Jiang Nanxiang advocated the educational concept of "being professional and devoted, and all-round development" and "teaching students according to their aptitude", as well as promoting the construction of "three student representative teams": the political mentoring team, the scientific pioneering team, and the arts and sports team. After the period of reform and opening up, Tsinghua adhered to the goal of training high-quality, high-level and diversified creative talents. It dedicated itself to the fostering of students' all-round development, innovative thinking, global vision, and social responsibility, to train and prepare outstanding talents to contribute to the betterment of society, the nation and the world. In the tranquil, beautiful and vibrant campus that is Tsinghua, students from across the world come together, sharing precious moments of their youth and making unforgettable memories. They come together in the place where the nation needs them most, to learn, develop their careers and bravely lead the

In 1925, in order to "reach the highest realms of academic exploration", Tsinghua established undergraduate programs and set up the Research Institute of Chinese Literature. Whether it was the bringing together of different academic traditions of China and the West, of ancient and modern, of science and the humanities, or "targeting the vanguard of academia, attaching importance to fundamental sciences and serving national development, and cultivating talents"; whether it was participating in major national engineering projects, such as the "two bombs and one satellite" project and the Miyun Reservoir project, or the creation of important designs such as the national emblem and the Monument to the People's Heroes, as well as innovations such as high-temperature air-cooled reactors and large container inspection systems; whether it was being at the forefront of academic fields in science and technology and arts and culture, the setting up of new majors required to carry forward national development, or defining comprehensive, research-oriented and open concepts for university management, throughout its magnificent history, Tsinghua has made countless vital and enduring contributions to China's national development strategy and academic fields worldwide, developing itself into a major base for technological and innovative thinking in China.

Entering a new era, Tsinghua University has embarked on mission-driven reform. The University will approach its university management by bringing together a global mindset, Chinese characteristics and the Tsinghua ethos. Leading from its breakthrough faculty reform, Tsinghua continues to place the retaining and fostering of talent at its core. Tsinghua will deepen the reform of education and teaching, establish the tripartite educational approach to "foster values, develop competence, and impart knowledge" and improve all-round education for all members of the Tsinghua community.

We will improve the construction of discipline classification, enhance academic innovation, accelerate the development of philosophy and social sciences, and strive for leading international achievements and innovation in low-dimensional quantum physics, structural biology, cryptography, neuromorphic computer chips, quantum computing and other fields. The University has reformed its social service system and mechanism, and has done a solid job in targeted assistance and poverty alleviation. We have established and implemented a global strategy, as well as international bases and institutes including the Global Innovation Exchange Institute (GIX), the China-Italy Design Innovation Hub, the Tsinghua Southeast Asia Center, and the

Tsinghua University Latin America Center, as well as Schwarzman College and the Tsinghua Shenzhen International Graduate School. We have initiated and chaired alliances, including the Asian Universities Alliance, the Global Alliance of Universities on Climate, and the Global MOOC Alliance, putting Tsinghua on the global stage. The University further advanced the "Double First-Class" initiative, realized the "three nineyear, three-step" overall strategic objectives as planned, and made a historic leap in becoming a world-class university.

During the momentous year of 2020, Tsinghua always put the health and safety of faculty, staff and students first. While adhering to the COVID-19 epidemic prevention and control measures, the University ensured that teaching and scientific research went on and reform and development continued. It led the way in online education reform, engaged in scientific research on the pandemic and strengthened international cooperation and dialogue. Through concrete actions, Tsinghua demonstrated the responsibility of a university in the face of crises and challenges, and pioneered a transformative era of teaching and education.

Chinese President Xi Jinping said that the field of higher education is inseparably linked with the development of the country and the future of the nation. In striving to become a leading world-class university, Tsinghua University will embrace the opportunities of today to make a better tomorrow. Our comprehensive reform mission strives to harness the evaluation and assessment mechanisms, build a worldclass innovative competence, strengthen academic ecology and culture, improve governance capabilities, and embrace a new leading role in making greater contributions to our national development and humanity's progress.

"A university should serve its country and keep the unique characteristics of its generation." Strive for excellence, innovate for the future. Tsinghua people will remain dedicated and committed to the pursuit of excellence and innovation. We will remain steadfast and spirited in our mission to advance the University's development and in writing a new chapter in Tsinghua's history.



Beautiful Campus

The campus of Tsinghua University is situated in northwest Beijing on the site of the former imperial gardens of the Qing Dynasty, and is surrounded by a number of historical sites.

"The World's Most Beautiful Campus"

— Forbes Magazine



Tsinghua University was established in 1911 under the name "Tsing Hua Imperial College," initially as a preparatory school for students who would be sent by the Chinese government to study in the United States. The university section was founded in 1925 and undergraduates were then enrolled. The Academy of Chinese Learning was set up in the same year. The name "National Tsing Hua University" was adopted in 1928. The Graduate School was set up in the autumn of 1929 and several research institutes were formed in various departments.

During the War of Resistance against Japanese Aggression, National Tsing Hua University moved to Changsha in 1937 and merged with National Peking University and Nankai University to form Lin-shihta-hsueh or the National Changsha Temporary University. It moved to Kunming in 1938, and was renamed the National South-West Associated University. When the war ended, Tsinghua returned to its original location at Tsinghua Garden in Beijing in 1946. By then, the university had five faculties – humanities, law, science, engineering, and agriculture – and a total of 26 departments. In 1952, Tsinghua became a polytechnic university after the nationwide institute reorganization policy in higher education was implemented.

Since 1978, Tsinghua has gradually expanded and established more departments in the sciences, economics, management, humanities and law. In 1985, the School of Continuing Education was established. The Central Academy of Arts and Design of China merged with Tsinghua in 1999. In the last decade, the university has made advances in the refinement of academic disciplines, faculty development and research. Tsinghua is now a comprehensive research university, with 21 schools and 59 departments covering disciplines in science, engineering, literature, art, history, philosophy, economics, management, law, education, and medicine.



Among the top research universities in the world

THE World University

THE World Reputation

Th

Q5 Graduate Employability
Rankings 2022

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Q5 Graduate Employability
Rankings 2022 in Asia

Test
US News Best Global Universities for Computer Science

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US News Best Global
Universities for Engineering

US News Best Global Universities for Materials Science

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US News Best Global Universities for Civil Engineering

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US News Best Global Universities for Nanoscience and Nanotechnology

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US News Best Global Universities for Physical Chemistry

A Diverse Student Body

3,424 international students from 130 countries are enrolled at Tsinghua University.

> 3,424 | 130 **INTERNATIONAL STUDENTS**

COUNTRIES

16,363

Undergraduates

21,587

Post-graduates (including part-time students)

19,375 **Doctoral Candidates**

Total 57,325

A Global University

Tsinghua has signed exchange agreements and established partnerships with 293 universities from 50 countries

COUNTRIES

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Global Innovation Exchange Institute



China-Italy Design Innovation Hub



China-Africa Leadership Development Institute

Global Strategy

Tsinghua University launched its global strategy in 2016. This comprehensive strategy reflects Tsinghua's vision to become a leading global university. Guided by this strategy, Tsinghua aims to foster innovative talents with global competence, serve China and the world through research, and strengthen its institutional competitiveness and global impact.

Since the formation of the global strategy, Tsinghua has established new global institutions dedicated to promoting international collaboration and providing students, faculty and staff with overseas opportunities to study, research and undertake internships. 2018 saw the opening of the Tsinghua University Latin America Center in Chile; the Tsinghua University Southeast Asia Center in Indonesia; and the China-Italy Design Innovation Hub in Italy, and the establishment of the China-Africa Leadership Development Institute.

Tsinghua University also initiated four University alliances, including the China-UK Humanities Alliance for Higher Education, Asian Universities Alliance (AUA), Global Alliance of Universities on Climate (GAUC), and Global MOOC and Online Education Alliance.

In 2018, Tsinghua founded the Center for Global Competence Development (CGCD), which aims to provide guidance, support and resources for all Tsinghua students on global competence, all the while fostering a more international campus. Through exchange programs, field trips, summer projects and conferences, Tsinghua students continued to gain overseas experience.



Tsinghua Shenzhen International Graduate School



Schwarzman College



Tsinghua Southeast Asia Center







Tsinghua Shenzhen International Graduate School

Tsinghua Shenzhen International Graduate School (Tsinghua SIGS) was launched in March 2019. Tsinghua SIGS—Tsinghua University's sole campus located outside of Beijing—is a further expansion and integration of the Tsinghua Graduate School at Shenzhen (GSST) and the Tsinghua-Berkeley Shenzhen Institute (TBSI), which were founded in 2001 and 2014, respectively.

At Tsinghua SIGS, we offer "6+1" theme areas to promote interdisciplinary research and learning: Materials Science, Data Science and Information Technology, Biopharmaceutical and Health Engineering, Ocean Engineering, Future Human Habitats, Environment and Ecology, and Innovation Management.

In 2021, Tsinghua SIGS celebrated its 20th anniversary. In the future, with Tsinghua University's advanced resources and Shenzhen's vibrant entrepreneurial environment, Tsinghua SIGS will continue to provide world-class graduate programs while supporting pioneering scientific research and close collaboration with industry in Shenzhen and the Greater Bay Area.

Schwarzman College

Designed to inspire the next generation of global leaders, Schwarzman College was officially launched in April 2013, formally established in October 2015, and enrolled its inaugural class in 2016.

Schwarzman College integrates top educational resources from around the world and actively explores new ways to foster talents and increase dialogue towards mutual understanding. The program aims to build global network of dynamic leaders who will establish stronger relationships between China and a rapidly changing world and address the most pressing challenges of the 21st century, and to be a pioneer for Chinese and global higher education innovation.

Scholars chosen annually for this highly selective program will earn a master's degree at Tsinghua

University. Scholars are selected from all over the world on the basis of their demonstrated leadership and leadership potential, as well as their academic aptitude and intellectual ability. Each year, the program admits up to 200 scholars from around the world, among them 40% from the U.S., 20% from China and 40% from the rest of the world. Each scholar will receive a comprehensive scholarship.

Leadership development is woven throughout the Schwarzman Scholars program, in both its academic and co-curricular programs. The academic program is rigorous and involves several required large lecture courses on leadership, global affairs, and China (the core), along with smaller elective courses that provide an opportunity for further in-depth learning on core themes.



Global Innovation Exchange Institute (GIX)

In 2015, Tsinghua University collaborated with the University of Washington to establish its first physical presence overseas: the Global Innovation Exchange Institute (GIX), with initial foundational support from Microsoft, in Seattle, U.S.A.

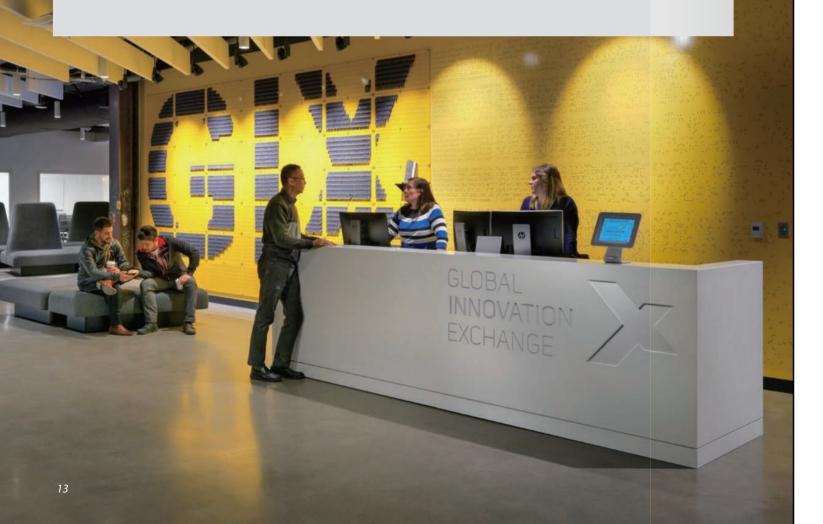
To deepen students' knowledge of the development of technology solutions, the GIX Dual Degree Program integrates the Master of Science in Technology Innovation (MSTI) which includes courses in Connected Devices and Robotics from the University of Washington with the Master's of Science in Engineering (Data Science and Information Technology) (MSE(DSIT)) from Tsinghua University. In 2020, a new track in Design was added to the program with collaboration from the Tsinghua University Academy of Arts and Design.

With a dual-campus curriculum, students spend the first year in Beijing, where they get connected with a thesis advisor and take courses on the Tsinghua campus, and then leave for Seattle to complete their 15-month MSTI program.

After meeting the degree requirements of both universities, students will be awarded a Master of Science in Engineering (Data Science and Information Technology) (MSE(DSIT)) or a Master of Fine Arts (Design) from Tsinghua University, and a Master of Science in Technology Innovation (MSTI) from the University of Washington.

Since its establishment, GIX has welcomed six cohorts of students from more than 20 countries and regions. The graduates have become innovators, entrepreneurs, and thought leaders, contributing to the effort of meeting the toughest challenges facing the world through innovation and global collaboration.

Featuring Re-Definition of Higher Education, GIX is a center for innovation where students, scholars and entrepreneurs around the world interact in a project-based learning and interdisciplinary integration to develop leaders in innovation who work collaboratively to solve real-life challenges.





China-Italy Design Innovation Hub

Initiated in 2017, the China-Italy Design Innovation Hub(CIDIH) is a design and innovation platform coestablished by Tsinghua University and Politecnico di Milano. The Hub and the Tsinghua Arts and Design Institute in Milan (ADIM) were officially unveiled in Milan, Italy in 2018. It is Tsinghua's first teaching and research base established in Europe that is dedicated to creating a good design innovation ecology, cultivating leading companies in design innovation, making positive contributions to education, scientific research and cultural exchanges between China and Italy, and effectively serving the Belt and Road Initiative .

Aiming at cultivating individuals who are innovative thinkers with a global perspective and a talent for art and design, CIDIH boasts teaching faculty recruited directly from Tsinghua and Politecnico di Milano, as well as talents from around the world, and strives to create a leading global teaching and research institution that is open, inclusive and innovative.

In 2021, the China-Italy Youth Future Fashion Design Competition was launched as one of the major activities of the "China-Italy Year of Youth Innovation and Entrepreneurship", the competition encourages the fusion of arts and technology, takes beauty as the medium, builds up an international platform for fashion innovation, and explores the cutting-edge trends for leading the future fashion.

China-Africa Leadership Development Institute

Supported by UNESCO, the China-Africa Leadership Development Institute (CALDI) was jointly established by the Institute of Education and the Office of International Affairs, Tsinghua University. CALDI is committed to training African officials, educating young Africans, developing the human resource of Chinese companies in Africa, and supporting Chinese students' internships in Africa. CALDI will promote the implementation of the Belt and Road initiative and provide strong support for the China-Africa comprehensive strategic and cooperative partnership, fulfilling the UN 2030 Agenda for Sustainable Development.



Tsinghua Southeast Asia Center

The ground-breaking ceremony for the Tsinghua Southeast Asia Center (Tsinghua SEA) was held at Kura Kura Island in Bali, Indonesia in 2018. Being a key component of Tsinghua University's Global Strategy that focuses on educational and cultural exchange, the Tsinghua SEA emphasizes talent training, academic exchange and cooperation in Southeast Asia and around the world. It serves the needs of Indonesia and Southeast Asian countries in terms of human capital training in the face of Industry 4.0, and contributes to the Belt and Road Initiative and UN SDGs.

In 2021, the Center has made steady progress in infrastructure construction and further enhanced its status as a platform for cooperation and exchange between China, Indonesia and other Southeast Asian countries through impactful talent training programs like Happy Digital X(HDX) and a series of high-level dialogue events.





Tsinghua University Latin America Center

The Tsinghua University Latin America Center was established in Santiago, the capital of Chile in 2018. The Center acts as a contact and exchange base, with the mission of enhancing exchange and cooperation between China and Latin America, and developing global competency among the students of Tsinghua University. It works closely with institutions in Chile and Latin America to promote collaboration in science and culture. It also encourages high-quality research, working as an open platform for efficient communication among government agencies, academies and business leaders of China and Latin American countries. It will contribute to the international influence and reputation of Tsinghua, as well as the implementation of the Belt and Road Initiative.

During 2020 and 2021, Tsinghua Latin America Center, together with several departments and institutions in Tsinghua, actively organized with local universities in Chile, Peru and other Latin American countries, a number of international events on important topics such as the 50th anniversary of diplomatic relations between China and Chile, the 50th anniversary of diplomatic relations between China and Peru, medical solutions and the public health policies to fight the pandemic, online education, development of global competency for students, climate change reaction, technology transfer mechanisms, science and technology and innovation, ancient civilizations and modern architecture dialogue, and interactive media technology, among others.



Asian Universities Alliance

The establishment of the Asian Universities Alliance (AUA) marks a significant milestone in Asian higher education. In 2016, Tsinghua University proposed to establish the AUA. With the joint efforts of all founding universities, the AUA was formally launched at Tsinghua University on 29 April 2017. AUA's annual Presidents Forum, student mobility programs, and academic and administrative conferences aim to address regional and global challenges, specifically those related to higher education and economic, scientific and technological development. The AUA Scholars Award Program

promotes cooperation in research and the AUA Staff Exchange Program enhances university administration across the Asian region. AUA also publishes the annual Asian Higher Education Outlook (AHEO) report, providing deep insights into the higher education systems of AUA members as well as the wider Asian region. The first AUA Online Education Fair and the first AUA Lecture Series were launched in 2021. Tsinghua University President Qiu Yong is the Founding President of AUA. The Secretariat is permanently hosted by Tsinghua University.

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The Global Alliance of Universities on Climate (GAUC) was formed during the annual meeting of the World Economic Forum in Davos, Switzerland, in January 2019. GAUC is currently comprised of 15 leading universities from 9 countries, over 6 continents.

Focusing on joint research, talent cultivation, campus action, societal implementation, and public engagement, GAUC's mission is to advance climate change solutions through research, education, and public outreach, while partnering with industry, non-profit and government organizations to promote rapid implementation from local to global scales.

Since establishment, GAUC has won recognition from global societies, across academic, civil society, and

corporate platforms, as well as from international climate leaders such as UN Secretary-General António Guterres, the Executive Secretary of the United Nations Framework Convention on Climate Change Patricia Espinosa, and COP26 President Alok Sharma. The flagship projects GAUC initiated include the Pathways to Net Zero Emissions conference, the Campus Decarbonization Workshop, the Conference of the Parties (COP) Youth Delegation and the GAUC Graduate Forum. In 2021, against the backdrop of climate emergency, GAUC updated the Graduate Forum into the Global Youth Summit on Net-Zero Future (Climate x Summit). The Summit, which included 30 events, attracted over 500 submissions by global youth and more than 5.6 million viewership worldwide.



Global MOOC and Online Education Alliance

The Global MOOC and Online Education Alliance serves as a mechanism for exchange and cooperation, providing leadership of global higher education efforts to address digital education challenges and to implement practical policies in local communities and around the world. Key activities include: Joint Teaching, Capacity Building, Knowledge Sharing and Public Advocacy. The Global MOOC Alliance is initiated by Tsinghua University, and cofounded by Cornell University, CRI (Center for Research and Interdisciplinarity), edX, Mongolian University of Science and Technology, Nanyang Technological University, Peking University, Politecnico di Milano, Rice University, RWTH Aachen University, Saint Petersburg University, Shanghai Jiao Tong University, Thai MOOC, Tsinghua University, University of Auckland, University of Chile, University of Manchester, University of Nairobi, University of Toronto, XuetangX, Zhejiang University. In 2021, Global MOOC and Online Education Alliance initiated programs including Online Education Dialogue, Global Hybrid Classroom, Global Open Courses, etc.

China-UK Humanities Alliance for Higher Education

The China-UK Humanities Alliance for Higher Education is an international organization for humanities in higher education initiated by Tsinghua University, and co-founded by other 12 top-ranking institutions in China and the UK. Founding members share the commonly recognition that humanities exchange in international relations has ever-increasing importance in enhancing mutual understanding and trust and in promoting the progress of human civilization, and that universities have the ability to provide high-quality education, lead the humanities exchange, and prepare future leaders with a comprehensive understanding of the complex issues that define this age. Up to 2021, participating members have expanded to 17.

Impact

Tsinghua University has fulfilled a key role in advancing international cooperation, as well as tackling global challenges such as climate change, carbon neutrality, online education, Al governance, among other critical global issues. Recent engagement initiatives such as the "Prospering Together——Latin American and Caribbean Ambassadors Convene at Tsinghua" supported by the Latin America Center, the "Global Youth Summit on Net-Zero Future (Climate x Summit)" held by the Global Alliance of Universities on Climate (GAUC), the professional education program "Happy Digital X: Cities, Systems, Products and Services (HDX)" promoted by the Southeast Asia Center, have showcased the progress and impact of Tsinghua University's global strategy.









Schools and Departments

Academy of Arts & Design

Department of Art History

Department of Arts & Crafts Department of Ceramic Design

Department of Environmental Art Design

Department of Industrial Design

Department of Information Art & Design

Department of Painting

Department of Sculpture

Department of Textile and Fashion Design

Department of Visual Communication

Department of Chemical Engineering

Department of Electrical Engineering Department of Engineering Physics

Institute of Nuclear and New Energy Technology

School of Aerospace Engineering

Department of Aeronautics & Astronautics Engineering Department of Engineering Mechanics

School of Architecture

Department of Architecture

Department of Building Science

Department of Landscape Architecture

Department of Urban Planning and Design

School of Civil Engineering

Department of Civil Engineering

Department of Construction Management

Department of Hydraulic Engineering

School of Economics and Management

Department of Accounting

Department of Economics

Department of Finance

Department of Innovation, Entrepreneurship and Strategy Department of Leadership and Organization Management

Department of Management Science and Engineering Department of Marketing

School of Environment

Department of Environmental Engineering

Department of Environmental Science

Department of Environmental Planning and Management

PBC School of Finance

School of Humanities

Department of Chinese Language and Literature

Department of Foreign Languages and Literatures

Department of History

Department of the History of Science

Department of Philosophy

School of Information Science and Technology

Department of Automation

Department of Computer Science and Technology

Department of Electronic Engineering

Institute for Network Sciences and Cyberspace

Research Institute of Information Technology

School of Software

School of Integrated Circuits

School of Journalism and Communication School of Law

School of Life Sciences

School of Marxism

School of Materials Science and Engineering

School of Mechanical Engineering

Department of Energy and Power Engineering

Department of Industrial Engineering

Department of Mechanical Engineering Department of Precision Instrument

Fundamental Industry Training Center

School of Vehicle and Mobility

School of Medicine

Department of Basic Medical Sciences

Department of Biomedical Engineering

School of Clinical Medicine

School of Pharmaceutical Sciences

School of Public Policy and Management

School of Sciences

Department of Astronomy

Department of Chemistry

Department of Earth System Science

Department of Mathematical Sciences

Department of Physics

School of Social Sciences

Department of International Relations

Department of Political Science

Department of Psychology

Department of Sociology Institute of Economics

Vanke School of Public Health

Beijing National Research Center for Information Science

Center for Combustion Energy

Institute for Advanced Study

Institute for Al Industry Research

Institute for Aero Engine

Institute for Interdisciplinary Information Sciences

Laboratory of Brain and Intelligence

Research and Conservation Center for Unearthed Texts

Yau Mathematical Sciences Center

Center for Arts Education

Division of Sports Science and Physical Education

Language Centre

Global Innovation Exchange Institute

Institute of Education

Qiuzhen College

Schwarzman College

Shenzhen International Graduate School

Tanwei College

Weiyang College

Xingjian College Xinya College

Zhili College



Undergraduate **Education**

The undergraduate program at Tsinghua University was founded in 1925. Presently, the university has 87 undergraduate majors covering science, engineering, literature, art, history, philosophy, economics, management, law, and medicine, as well as 18 second majors. Each year, approximately 3,400 Bachelor's degrees are awarded.

Tsinghua's undergraduate education adheres to a three-dimensional approach including the shaping of values, cultivation of skills and imparting knowledge. aimed at nurturing students' skills of critical thinking, problem solving, effective communication and global competence.

By grouping disciplinary majors into different major tracks and establishing a comprehensive liberal arts education system that covers humanities, arts, social sciences, and technology, Tsinghua's undergraduate education has put the liberal arts education as the core foundation and organically combined it with academic knowledge and professional skills learning.

Against the backdrop of globalization, the undergraduate education at Tsinghua University is committed to cultivating students with a sense of mission and in the pursuit of excellence, to nurture an all-rounded character with innovative thinking abilities, a global perspective and a strong sense of social responsibility.

world come together to create a vibrant community, immersed in the Chinese context. From the winding roads running through the campus, to the elegant buildings standing in bold splendor, every corner of Tsinahua proclaims the same message of excellence and boundless possibility. It has been the honor of my life to study and interact with some of the brightest minds and future leaders of China and the world!

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Isaac Banda Undergraduate Student School of Social Sciences





Graduate Education

Graduate education at Tsinghua dates back to the 1920s. As the top research university in China, the graduate education at Tsinghua features multidisciplinary and individualized education suitable for students from a broad range of backgrounds; an excellent research platform, and plenty of research funding and resources, enabling students to access specialized academic training; world-class faculty with overseas experiences, adequate number of high-quality curricula delivered in English, and active partnerships with reputable universities of the world; unique practical courses and opportunities for international students to gain professional knowledge and improve their industry skills through internships.

Tsinghua University currently offers 29 English-taught graduate degree programs, including 19 programs in science and engineering and 10 in humanities and social sciences. In partnership with top institutions worldwide, 52 joint degree programs have been established.

At Tsinghua University, there are more than 500 graduate courses taught in English available to all students. In order to enhance the international students' understanding of China, a series of "Understanding China" courses has been developed, covering history, culture, art, philosophy, politics, economics, science and technology, law, society, environment, among other topics.

Each year, over 1,000 international students from over 100 nations are admitted to pursue Master's or Doctoral degrees at Tsinghua.

Since the regular prevention and control of COVID-19 in 2021

More 2/3 of Tsinghua University's courses are given through hybrid teaching

teachers and

on-campus courses are open to domestic sister universities

covering more than 6000

on-campus courses are open to students from foreign universities

global open courses are open to learners all over the world

covering more than 800,000 people as of November 15

Hybrid Education

Since the first week of the spring semester of 2021, more than 2/3 of Tsinghua's courses have been given through hybrid teaching. The University has launched the "WeYoung Plan" based on hybrid teaching, where students can select courses and attend them online. As of early November 2021, a total of more than 440 courses have been part of the Project.

Starting from the spring semester of 2021, based on hybrid teaching, the University has opened 48 courses to teachers and students from universities across China. Nearly 2,000 university teachers and more than 4,000 students have studied online with Tsinghua's students.

In the spring semester of 2021, Tsinghua launched Global Hybrid Classroom. Up to now, we have opened 49 global hybrid classes to overseas universities, and more than 400 students from 14 universities have taken our courses. More than 70 students from Tsinghua have attended the courses offered by 7 overseas universities. In Global

Hybrid Classroom, learners from both Tsinghua and foreign universities can earn credits.

In the fall semester of 2021, Tsinghua launched 8 global open courses based on hybrid teaching. Learners can learn part or all of the course content based on their own interests and participate and interact online in real time. Until early December 2021, we have attracted over 2,300,000 learners worldwide.

Founded in 2013, XuetangX has been the first choice for many universities and faculty in China, having accumulated 83 million registered users on both the MOOC platform and the Rain Classroom. The launch of the online English version of XuetangX and the innovative attempt of clone classes based on Rain Classroom have laid a solid foundation and provided a strong technical guarantee for Tsinghua's hybrid teaching to reach out from the University to the outside world.

Global Competence Development

Tsinghua is committed to equipping students with global competency - one important goal of Tsinghua's global strategy. In 2018, with a mission to support global competence development for all students, and to facilitate this development as an integral component of undergraduate and graduate education, Tsinghua founded the Center for Global Competence Development (CGCD).

The Center provides campus-wide transformative learning experiences with a global focus, leads cutting-edge research and development in the field of global education, facilitates cross-cultural engagement opportunities for all students and faculty members, and promotes a global competency-based cross-cultural understanding on campus and beyond. With guidance, support and resources provided by the Center, Tsinghua students are better equipped to become the global leaders of tomorrow.



Continuing Education

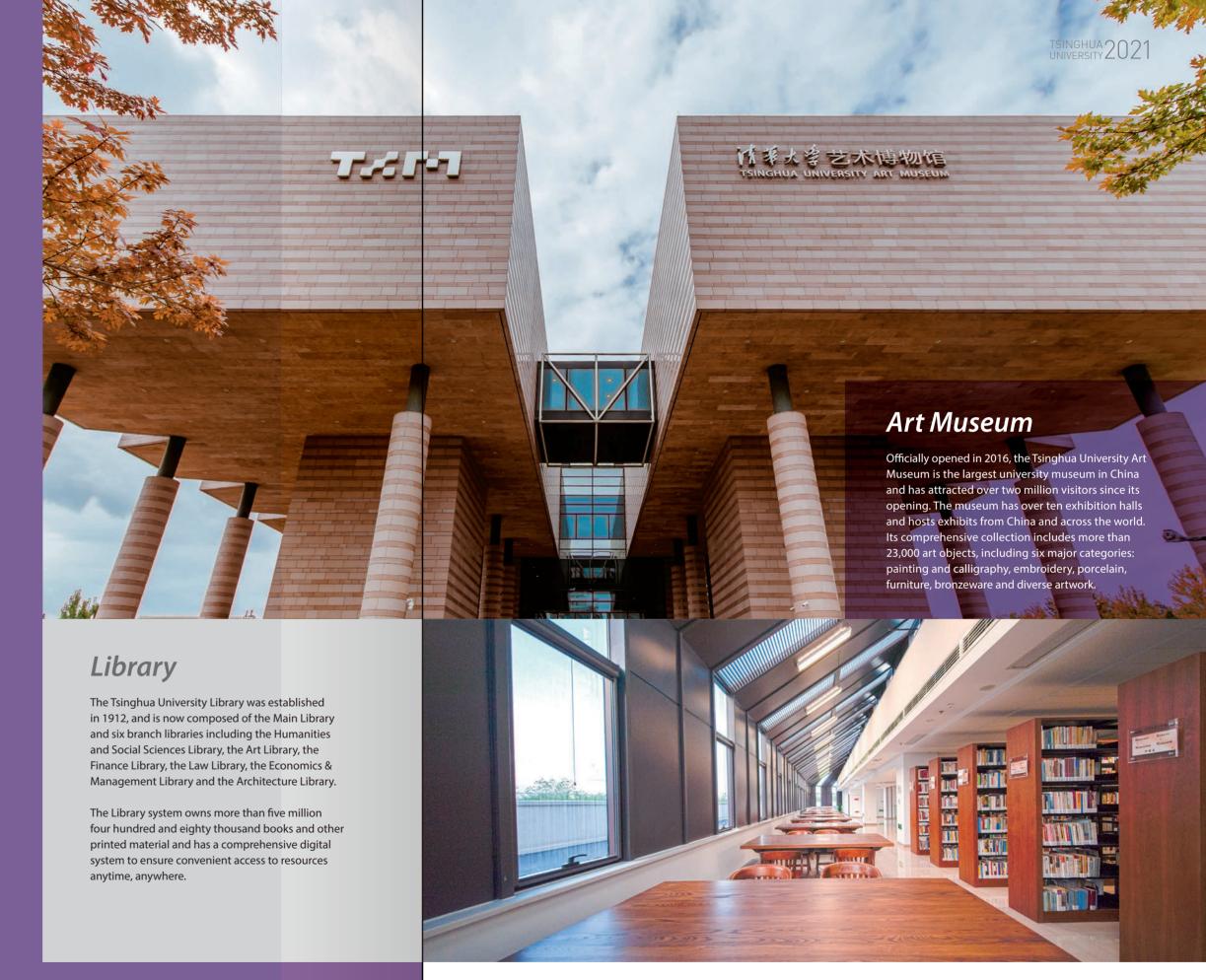
The School of Continuing Education of Tsinghua University is the first of its kind in continuing educational institutes in China. It is also the only China-based UNESCO chair in Continuing Engineering Education. Through a fostering relationship and an open dialogue with the top international universities, the School of Continuing Education provides a high-level education based on an experienced international teaching faculty. Integrating the teaching strategies and skill sets of both East and West, the School instills in students a strong sense of global perspective and an open mind by providing the most up-to-date knowledge, and by preparing students with global competence.

The School offers a series of international cooperative education curricula, both outbound and inbound, including international courses on a variety of subjects and an international customized curriculum.



Currently spending my second year at the School of Journalism and Communication at Tsinghua University, I fell in love with the campus as soon as I stepped in. The courses that I attended, student associations that I joined, including the Global Communication Office, and the school activities that I have participated in further added to my admiration for this institution. The professionalism, guidance, and passion from the professors gave me more confidence to pursue my interest in the field of journalism and communication. I am extremely happy and honored to be part of this large Tsinghua family, where my most unforgivable memories will be made.

Katherin Thouvenin Graduate Student School of Journalism and Communication





With the goal of conducting fundamental global research on high-impact societal issues, serving core national development needs, and connecting academic research with talent cultivation, Tsinghua University is dedicated to promoting scientific innovation and resolving global challenges.



Tsinghua scientist Wang Dazhong receives China's most prestigious national award

The 2020 National Science and Technology Award
Conference was held at the Great Hall of the People in
Beijing on November 3. Academician Wang Dazhong of
Tsinghua University received the 2020 State Preeminent
Science and Technology Award, China's most prestigious
science and technology award, for his outstanding
contribution to scientific and technological innovation

Former President of Tsinghua University, Wang Dazhong is one of the distinguished nuclear scientists in the world who has played a key role in China's nuclear energy development. Wang, 86, an academician of the Chinese Academy of Sciences, has devoted decades of efforts to advancing innovation in advanced nuclear energy system featured with inherent safety.

Among his many outstanding accomplishments were the research, design, construction, and operation of the world's first Low Temperature Nuclear Heating Reactor (NHR-5) and the first modular High Temperature Gas-cooled Reactor (HTR-10). High Temperature Gas-cooled Reactor is one of the six nuclear energy systems identified and selected by the Generation IV International Forum for further development. (Photo designer: Liang Chen)

World's first HTR-PM nuclear power plant connects to grid

The demonstration nuclear power plant project (NPP) of High Temperature Gas-cooled Reactor (HTGR) at the Shidaowan site was connected to the grid for the first time on December 20, 2021. The project was the First-of-a-Kind (FOAK) NPP of high temperature gas-cooled reactor – Pebble bed Module (HTR-PM) in the world.

This has been achieved through more than 30-years of continuous research by hundreds of Tsinghua scientists, stepping from the basic research of key technologies to the 10MW experimental reactor (HTR-10) at the institute of Nuclear and New Energy Technology of Tsinghua University (INET) and to the demonstration project of commercial NPP at Shidaowan. Tsinghua scientists worked closely with their partners, China Huaneng Group and China National Nuclear Corporation, to make HTR-PM a successful record that 93.4 percent of the equipment has been manufactured domestically.

When operating at the rated power, the Shidaowan NPP will generate about 1.4 billion kilowatt-hours of electricity per year, providing household electricity for 2 million residents and reducing carbon dioxide emissions by 900,000 tons.

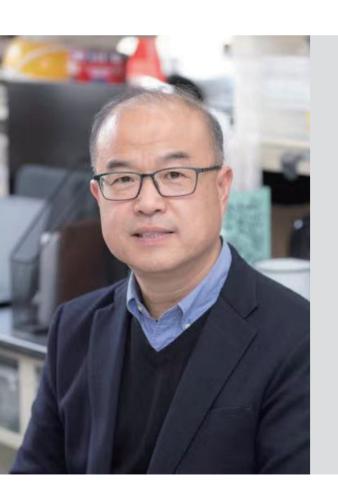


A clear view of industrial emissions control technology

Tsinghua researchers are at the forefront of industrial pollution mitigation, helping set emissions benchmarks and exporting their systems to the world. Professor Li Junhua runs a key flue gas treatment project through Tsinghua's School of Environment, and he is leading China's industrial emission-reduction effort. His group's focus has been selective catalytic reduction systems to remove ozone-depleting, smog-inducing and acid rain-causing nitrogen oxides, which are major air pollutants produced by several industries, including coal-fired power.

Produced by the combustion of coal, petroleum, natural gas, and other fossil fuels, nitrogen oxides are being tackled with everything from vanadium pentoxide catalysts to specific performance parameters of ammonia escape, explains Li. The integrated treatment systems to meet ultra-low emission were developed and applied in steel and cement industry, major air pollutants around 3 million tons per year were removed with the application of the technology.





China approves country's first COVID-19 antibody drug, developed by Tsinghua professor and team

A Chinese research team has developed an "antibody cocktail therapy" that can fight against SARS-CoV-2.

The antibody cocktail made of two monoclonal antibodies Brii-196 and Brii-198 has shown an efficacy of 80 percent in cutting hospitalizations and deaths among high-risk groups in multicenter randomized clinical trials.

The treatment has been jointly developed by a research team led by Prof. Zhang Linqi, a professor at School of Medicine of Tsinghua University, the Third People's Hospital of Shenzhen, Guangdong province, and Brii Biosciences.

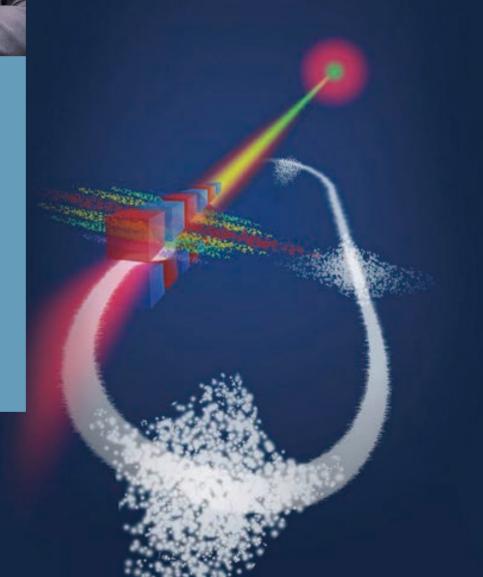
Prof. Zhang has devoted 30 years to studying HIV-1 pathogenesis and vaccine development, and also emerging and re-emerging human viral pathogens such as Middle East respiratory syndrome coronavirus (MERS-CoV), SARS-CoV-1, and SARS-CoV-2.



"A high-power EUV source is of crucial importance for high-volume manufacturing using EUV lithography," explains Tang, a professor in the Department of Engineering Physics at Tsinghua University. EUV lithography reduces the steps needed to manufacture circuits by bypassing multi-patterning, a multiple-exposure method currently used to get finer circuit pattern resolution. But power is the key to realizing viable EUV lithography, says Tang, since the optical system is reflective and the power loss of each of the 11 reflections exceeds 30%.

Microbunching illuminates new technological horizon

A new source of high-power extremeultraviolet (EUV) light, steady-state microbunching (SSMB), is peeking over the horizon, following a proofof-principle experiment published in Nature. Corresponding author, Tang Chuanxiang, says the potential power of SSMB EUV could be used to etch moreintricate patterns onto semiconductor circuits, which are used to store and transfer data in devices.







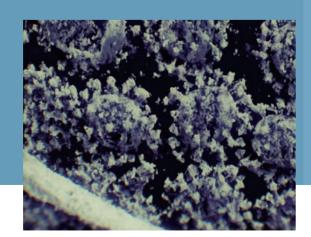


How SARS-CoV-2 packs its punch

In late 2020, a group led by Professor Li Sai at Tsinghua University detailed the molecular shape of SARS-CoV-2 at sub nanometer resolutions. In the process, Li's team revealed more about the virus's exceptional infection and cloaking mechanisms, and added to the early series of structural studies supporting vaccine development.

The Tsinghua team also demystified how coronaviruses pack in the largest genome of all RNA viruses. And Li's study has also shed light on how positive-strand RNA viruses package their ribonucleoprotein in general.

"The intact SARS-CoV-2 virus structures by many groups around the world provided vital structural and statistical references for major vaccines that went into development," Li says. "Happily, the conclusions about spikes are very consistent. I believe a series of 2020 papers together were able to confirm what the bona fide SARS-CoV-2 virus looks like."

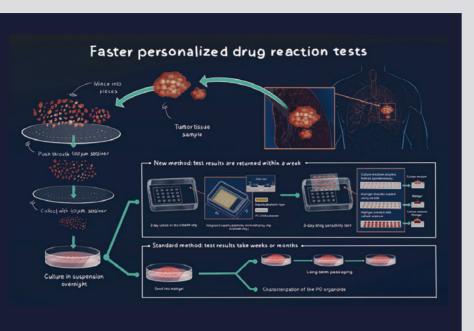


A big new player in largescale natural-language Al

China's first super-scale natural-language AI was unveiled in early 2021, and an even larger version of 1.75 trillion parameters was released in June. It's currently the world's largest natural-language artificial intelligence (AI) model, able to understand and generate coherent text and images based on content and images in Chinese, as well as English and other mainstream languages.

Development of the AI, called Wu Dao, was led by Tang Jie, a professor in Tsinghua's Department of Computer Science and Technology and vice director of academics at the Beijing Academy of Artificial Intelligence (BAAI).

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A new rapid lung-cancer drug sensitivity test

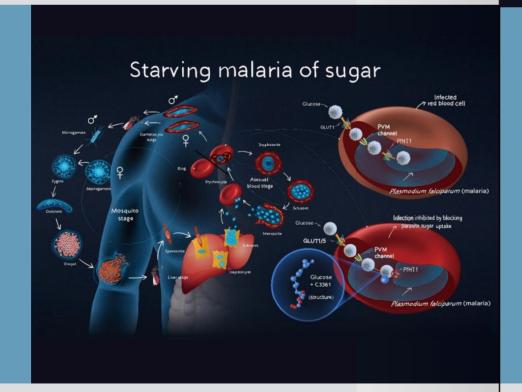
In Nature Communications in May 2021, Tsinghua's Liu Peng and his collaborators showcased how their new drug sensitivity testing system could produce results on lung cancer tumor tissue samples within a week.

Patient-derived organoids (PDO) are useful for personalized drug testing because they reflect the basic structural and functional characteristics of the original cancer tissue. The three-dimensional cellular structures are grown from a patient's biopsy or from surgically removed tissue samples.

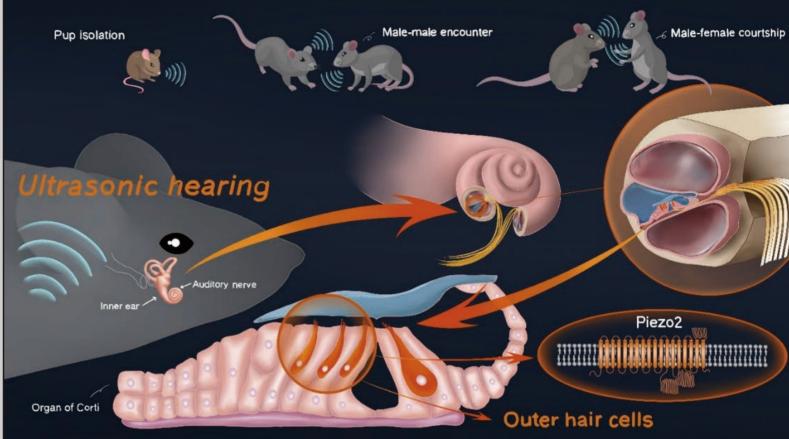
Multiple moves for malaria

In June 2021, for the first time the World Health Organization (WHO) certified China as malaria-free after it reported zero indigenous cases since 2017. In the same summer, Tsinghua researchers detailed a new anti-malarial avenue, a small molecule that blocks sugar uptake in the malaria parasite.

A Tsinghua team has designed a small molecule that inhibits the Plasmodium falciparum hexose transporter 1, the main sugar-uptake protein of the deadliest species of malaria, without depriving host cells of sugar. The possibility that this could slow malaria's replication process in human blood is an important new avenue for development given the rise of drug resistant strains of the deadly parasite across the world, says lead researcher Hang Hubert Yin.



Ultrasonic vocalization frequencies: 50-100 kHz



Untangling the mystery of ultrasonic hearing in mice

Like many mammals, mice can hear and communicate with sounds well outside the range audible to humans. In addition to their familiar squeaks, mice also use much higher frequency ultrasonic sounds for social communication, between mothers and pups, and during courtship or aggressive interactions.

However, in July a team from Tsinghua showed that mice lacking a mechanosensitive ion channel found in cochlear hair cells, Piezo2, weren't as sensitive to ultrasonic sounds, but remained sensitive to lower-frequency sounds. "We thus hypothesized that Piezo2

may play a role in transducing higher frequencies," says Xiong Wei, an assistant professor in the School of Life Sciences at Tsinghua University.

The studies demonstrate that hearing uses a more complicated set of mechanisms than was thought, says Xiong. And it raises new questions about the diversity of hearing across different species. Some animals, such as insects and frogs, lack a cochlear structure, but are still able to sense and make ultrasonic vocalizations. Whether Piezo2 is involved in their hearing needs to be examined.

Recognition In 2020, the faculty of Tsinghua University won 15 national awards, including three State Natural Science Awards, two State Technology Invention Awards, and ten State Scientific and Technological Progress Awards. In addition, Tsinghua faculty won 14 international awards.



Innovation and Entrepreneurship Education

At Tsinghua, we believe that every student has innovative DNA in them. Adhering to a three-dimensional approach including the shaping of values, cultivation of skills and imparting knowledge, Tsinghua has built a comprehensive ecosystem to integrate innovation and entrepreneurship education into the talent training system, offering full support, covering students' expenditure of creativity, innovation, and entrepreneurship.

- The Student Future Innovation Group inspires creativity: it encourages students to build teams across different disciplines and grades, while initiating their own innovation projects.
- The iCenter serves technological innovation: it is the largest campus "maker" space in the world.
- The chuangplus and x-lab support entrepreneurship: they help startups gain market resources and help them seek professional guidance from off-campus tutors.

Laboratories

- 1 National Research Center
- 13 State Key Laboratories
- 11 National Engineering Laboratories
- 16 Key Laboratories of the Ministry of Education
- 138 collaborative research centers

To promote cross-disciplinary and cutting-edge research, Tsinghua University established ten interdisciplinary institutes in various areas, including unmanned systems, the internet of vehicles, flexible electronics, brain and intelligence, big data, artificial intelligence, and medical engineering multidisciplinary studies.





Student life at Tsinghua extends far beyond academic courses. The university offers a vast array of clubs and societies, as well as sports and performing arts activities to foster students' all-round personal development.

LIFE AT TSINGHUA

TSINGHUA
UNIVERSITY 2021







Sports

The motto "No Sports, No Tsinghua" reflects the exceptional athletic tradition at Tsinghua.

The university established its first sports team in 1912. In 2020, Tsinghua had more than 1,300 student athletes in 55 different sports teams, and won 88 gold medals in international and domestic events. There are also more than 55 students' sports clubs.

provides nearly 60 different sports courses for students. In addition, the Ma Yuehan Cup, named after Ma Yuehan - a renowned Tsinghua Professor in Sports Science - is a highlight in the annual Tsinghua sports calendar. It is comprised of 45 sports, with more than 10,000 participant from students and faculty.

At the 2021 Tokyo Olympics, Tsinghua university student Yang Qian won the first gold medal of the Tokyo Olympics and set a new Olympic record in the women's 10m air rifle final.

Fsinghua University actively participates in the preparation of the Beijing 2022 Olympic and Paralympic Winter Games, through the organization of more than 900 volunteers, offering support for the performances at the opening and closing ceremony, venue services, international liaison and enti-doping.

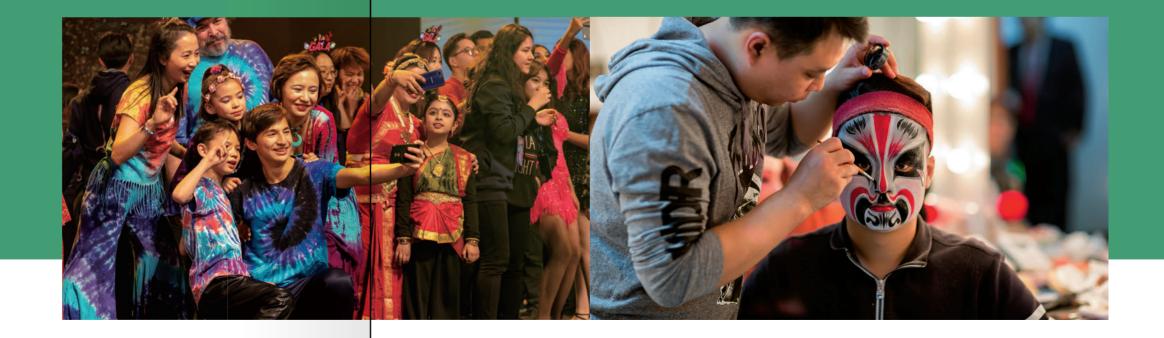




Performing Arts

The performing arts constitute another important aspect of student life at Tsinghua. The Center for Arts Education was established in 1993 and currently offers more than 160 performing arts courses for all students of the University.

The Tsinghua Singing Competition, held annually in December, is a very popular event among students across campus. The New Year Gala Night, organized by the International Students & Scholars Center, is a much-awaited annual event to celebrate the New Year, with performances by Chinese and international students.



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Clubs & Societies

At Tsinghua, students can choose from more than 250 clubs and societies covering main areas including culture, arts, sports, science and innovation, and public welfare.

Living on Campus

Life is very convenient and enjoyable on the Tsinghua campus. The campus' dozens of large canteens provide the Tsinghua community with an array of different cuisines. The dormitory area is well equipped with facilities, including sports fields, supermarkets and coffee shops. Across the campus you can find all services for your daily needs, including banks and the hospital. Among its many sporting facilities, Tsinghua has an Olympic standard swimming pool.



International Students & Scholars Center

The International Students & Scholars Center (ISSC) supports and serves international students and scholars throughout their Tsinghua experience. The center is a hub of information and resources for the international community, including for immigration and visas, residency, university services, campus life and cultural activities. ISSC aims to foster an inspired and dynamic international community to help every international student and scholar thrive at Tsinghua. The ISSC staff are dedicated to ensuring that the international community is supported, nurtured and represented at Tsinghua.

Center for Faculty Development

Established in 2017, the Center for Faculty Development (CFD) is operated by the Human Resources Office and serves as a comprehensive hub for training, consulting and research aimed at promoting the professional development of Tsinghua faculty.

With the mission of leading, accompanying and supporting Tsinghua faculty, the CFD conducts various kinds of activities, such as training courses, workshops, seminars, and salons, surrounding the themes of "ethics, education, academic research and leadership." By offering a platform for Tsinghua faculty to interact and exchange ideas with their counterparts, the CFD is dedicated to strengthening teaching capabilities and promoting the organic alliance of faculty growth and Tsinghua's development.

Tsinghua Alumni

Outstanding Alumni

Tsinghua University alumni are strong performers across a range of different industries and sectors. They have endeavored to make significant contributions to China's economy, culture, science and technology and play a more important role in global development.

Outstanding alumni include the Nobel Prize winners Yang Chen-Ning and Tsung- Dao Lee; statesmen such as President Xi Jinping, former President Hu Jintao, former Premier Zhu Rongji, and former Chairman of the Standing Committee of the National People's Congress Wu Bangguo, as well as many well-renowned scientists and entrepreneurs.

Tsinghua Alumni Association

The Tsinghua Alumni Association was founded in June 1913. Currently, it has 92 regional associations in China and 55 branch associations in different countries, including the United States, Canada, the United Kingdom, France, Germany, Switzerland, Austria, Spain, Italy, the Netherlands, Australia, New Zealand, Japan, Singapore, Thailand, Cambodia, and Malaysia.





Join Tsinghua

Tsinghua's comprehensive admissions process aims to recruit the most talented students and has a diversified scholarship system offering full or partial funding for undergraduate, graduate, and visiting students.

Tsinghua University Admissions Office Tel: +86-10-62783100 Email: admissions@tsinghua.edu.cn Website: http://www.join-tsinghua.edu.cn

Tsinghua University Graduate Admissions Office Tel: +86-10-62781380 Email: grad@tsinghua.edu.cn Website: https://yz.tsinghua.edu.cn/

Non-Degree Programs, Academic Affairs Office
Exchange/Visiting Program
Tel: +86-10-62773508
Email: exchange@tsinghua.edu.cn / visiting@tsinghua.edu.cn
Chinese Language Program
Tel: +86-10-62771368
Email: chinese@tsinghua.edu.cn

Graduate Scholarship and Grants Management Office Tel: +86-10-62789660 Email: finaid@tsinghua.edu.cn

Shuimu Tsinghua Scholar

To attract excellent scholars, Tsinghua has launched the Shuimu Tsinghua Scholar Program, a postdoctoral program that aims to support young scholars in their academic career and educate leading researchers across 50 fields.

In 2022, 200 outstanding scholars are expected to join the program. They are entitled to housing support, equal medical plan privileges as Tsinghua faculty, and their children are offered positions at Tsinghua University's kindergarten, elementary school and middle school.

To learn more of the program, please visit: https://postdoctor.tsinghua.edu.cn/info/zxtz/1777



Global Communication Office Phone: +86-10-62783289 E-mail: overseas@tsinghua.edu.cn Website: www.tsinghua.edu.cn

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