# TSINGHUA UNIVERSITY 2024

TRAFE



Tsinghua University, with over 113 years of academic heritage, embodies a legacy of innovation and unwavering excellence. Established with a vision to drive progress and societal advancement, Tsinghua remains dedicated to nurturing a diverse community of thinkers, creators, and leaders, contributing to global peace, prosperity, and sustainable development. At Tsinghua, our assembly of innovative minds and visionaries is striving to fulfill the significant needs of the country and actively building a community with a shared future for mankind.



Why Tsinghua 



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A Global University



**Research &** Innovation

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Study at Tsinghua



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Situated in the historic splendor of Beijing's former imperial gardens, Tsinghua University is one of the world's most beautiful campuses. Harmonizing the depth of traditional Chinese scholarship with contemporary scientific rigor, Tsinghua stands as a beacon of academic excellence and interdisciplinary innovation. Here, the ceaseless pursuit of knowledge is coupled with a profound commitment to societal transformation, marking it a positive force in shaping the global future.

# History

Tsinghua University's history began with its inception as "Tsing Hua Imperial College" in 1911. The faculty greatly valued the interaction between Chinese and Western cultures, the sciences and humanities, the ancient and modern. Tsinghua scholars Wang Guowei, Liang Qichao, Chen Yinque and Zhao Yuanren, renowned as the "Four Tutors" in the Institute of Chinese Classics, advocated this belief and had a profound impact on Tsinghua's later development.

Following the outbreak of the War of Resistance against Japanese Aggression in 1937, National Tsing Hua University, National Peking University and Nankai University merged to form the National South-West Associated University in 1938 after moving to Kunming.



(a)

In 1946, the University returned to Beijing. After the founding of the People's Republic of China, the University transformed into a polytechnic institute. Following China's reform and openingup policy, the university evolved into a comprehensive research institution at a breathtaking pace, strongly engaging with the global community. Today, as a leading institution with 22 schools and 59 departments, Tsinghua is at the forefront of international research, dedicating its vast capabilities to advancing public welfare and tackling global challenges.

## **Among the Top Research Universities in the World**





**THE World** Reputation **Rankings 2023** 



**THE World** University Rankings 2024



**US News** 2022-2023 Best **Global Universities** Rankings



**QS World University Rankings** 2024 Top global universities





**THE World University Rankings** 2024 by Subject

**QS World University Rankings** by Subject 2024

#### **7<sup>th</sup> Education** 8<sup>th</sup> Business and Economics

**5<sup>th</sup> History of Art 6**<sup>th</sup> Civil and Structural Engineering **8**<sup>th</sup> Architecture & Built Environment

- **1**<sup>st</sup> Artificial Intelligence
  - **Chemical Engineering**
  - **Computer Science**
  - **Electrical and Electronic Engineering**
  - Engineering
- 2<sup>nd</sup> Chemistry **Energy and Fuels Physical Chemistry** 
  - Water Resources
- **3**<sup>rd</sup> Condensed Matter Physics
  - **Materials Science**
  - Nanoscience and Nanotechnology
- **4**<sup>th</sup> Civil Engineering
- **5**<sup>th</sup> Mechanical Engineering
- **7**<sup>th</sup> Environment / Ecology
- 8<sup>th</sup> Physics
- **9<sup>th</sup> Meteorology and Atmospheric Sciences**



## **A Diverse Student Body**





## **Faculty Spotlight**

Tsinghua University nurtures and advances intellectual exploration by uniting an assembly of the globe's most esteemed academics, including Nobel laureates, Fields Medalists, and Turing Award winners. With a foundation built on innovation and a tradition of academic excellence, Tsinghua offers a vibrant ecosystem where groundbreaking research and pioneering ideas flourish. We provide the necessary resources and support to foster an environment that encourages the synthesis of ideas. In doing so we facilitate significant contributions to global knowledge.



**Members of Chinese Academy** of Sciences







**Members of Chinese Academy** of Engineering

# A GLOBAL UNIVERSITY

Tsinghua is fulfilling its emerging leadership role through its impactful collaborations and sharing of advanced knowledge. It is pioneering the way for future behavior and innovation in the development of global higher education to better meet the significant needs of the country and build a community with a shared future for mankind.

The latest iteration of the Global Strategy shifts its focus to this decade's emerging development priorities, conveyed in three aspects to shape the future: to build a global faculty of excellence, cultivate students with global competence, and enhance the institutional capacity for further internationalization.









Countries

Tsinghua weaves a global tapestry of collaboration, establishing partnerships with 385 universities, research institutes, and international organizations spanning 53 countries at the university level.





#### **World Health Forum**

The 3rd World Health Forum, organized by Tsinghua and centered on "Preparing the World for the Next Pandemic," brought together over 150 global experts to discuss strategies for pandemic response, public health improvement, and health-related technological advancements. Participants included representatives from the public health sector, esteemed universities and institutions, and international organizations from more than 14 countries and regions.

#### **World Peace Forum**

The 11th World Peace Forum, hosted by Tsinghua in collaboration with the Chinese People's Institute of Foreign Affairs, commenced in Beijing. Attended by over 400 participants, including former foreign dignitaries, ambassadors to China, and scholars, the forum embraced the theme "Stabilizing an Unstable World through Consensus and Cooperation." The agenda includes four key plenary sessions and 20 panel discussions, covering a broad spectrum of topics such as the emergence of a new world order, the evolution of multilateralism, the impact of major powers on international security, and regional cooperation in reform.

#### Tsinghua Higher Education Forum

The 2023 Tsinghua Higher Education Forum, themed "Higher Education for Sustainable Development," commenced on October 28 in Beijing. Gathering global leaders and scholars from prestigious institutions, the forum delved into sustainable practices, the development of world-class universities, and advancements in engineering education.





#### **Global MOOC and Online Education Conference**

The 2023 Global MOOC and Online Education Conference in Milan, spotlighting Al's impact on education, united over 60 experts from 20+ countries. Hosted by Tsinghua and Politecnico di Milano, the conference explored Al in STEM, educational equity, and teaching innovation, drawing 70+ universities and organizations to advance digital higher education and foster international cooperation.

#### **Milan Academic Week**

The 2024 Milan Academic Week, hosted by the China-Italy Design Innovation Hub of Tsinghua University in collaboration with Politecnico di Milano, kicked off with a theme of "Dialogue for Innovation between Civilizations." The event marks a significant step in the partnership between the two universities, celebrating 20 years of China-Italy Comprehensive Strategic Partnership. The week features thematic forums, university courses, and practical programs aimed at nurturing globally competent talents and advancing international cooperation.

#### Latin American and Caribbean Ambassadors Convene at Tsinghua

On April 28, 2023, Tsinghua gathered over 30 diplomats from 20 Latin American and Caribbean nations to discuss "High-Quality Development and the Chinese Path to Modernization." Keynote speakers, including Uruguay's Ambassador to China and former Chinese Ambassador to Peru, highlighted the event's focus on technology, innovation, and cross-regional cooperation in fields like digital economy and Al. The forum aimed to share China's development insights and strengthen China-LAC partnerships, receiving positive feedback on future collaboration between universities and countries in pursuit of shared global advancement.

#### International AI Cooperation and Governance Forum

Tsinghua University and The Hong Kong University of Science and Technology (HKUST) co-hosted the "International AI Cooperation and Governance Forum 2023" on December 8-9, 2023. This pivotal two-day event convened over 50 global Al experts, industry leaders, and government and international organization representatives to discuss the advancements and implications of technologies like generative AI. They aimed to craft a global governance framework for these innovations. Supported by prominent entities such as UNDP China and UNESCO, the forum attracted diverse international government and academic participants, underscoring a collaborative effort towards responsible AI development and policymaking.

#### **Global Youth Climate Week**

On November 20, 2023, Tsinghua hosted the second Global Youth Climate Week, orchestrated by the Global Alliance of Universities on Climate. Highlighting the "Climate x" Campaign, this event showcased initiatives by nearly 1,000 students from 300 universities worldwide. A key feature was the Global Youth Summit on Net-Zero Future, where young innovators and experts discussed climate solutions, embodying a youth-driven approach to global climate action.



Launch of United Youth Initiative 发布青年联合倡议

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#### Tsinghua SEM Advisory Board Meeting

On October 20, 2023, Tsinghua SEM conducted its 24th annual Advisory Board Meeting, focusing on sustainable development in education. Led by Apple CEO Tim Cook, the meeting attracted 20 members, including global leaders and experts, to discuss the school's advancements and challenges. Chinese Vice President Han Zheng highlighted China's commitment to economic globalization and education before the meeting. The board offered strategic advice on integrating sustainability into Tsinghua SEM's programs, aiming to propel the school towards global prominence in economics and management education.

#### Tsinghua Global Youth Dialogue

The inaugural Tsinghua Clobal Youth Dialogue successfully concluded, uniting over 60 young representatives from more than 30 countries under the theme "United Youth, Shared Future." This event, sponsored by Tsinghua University and co-organized with Astana International University and Universitas Gadjah Mada, fostered discussions on global challenges and cooperation. The dialogue showcased cultural exchange with a Harmony Concert and visits to Chinese cities, emphasizing diversity and integration.



#### **Clobal Innovation Exchange Institute**

#### (GIX)

Launched in 2015, GIX is a groundbreaking partnership between Tsinghua University and the University of Washington, marking Tsinghua's first physical presence overseas. It offers a dual-degree program combining technology innovation and engineering, with new tracks in Design and Architecture. This initiative aims to develop tech solutions and nurture future leaders in technology and related fields.

#### China-Italy Design Innovation Hub (CIDIH)

The CIDIH, formed by Tsinghua University and Politecnico di Milano, fosters high-end design and business incubation, aiming to elevate "Made in China" to "Designed in China" through a fusion of Chinese development and Italian creativity. Offering dual-degree masters, cooperative courses, and international projects, it seeks to develop globally competent design innovation leaders.

#### Tsinghua Southeast Asia Center

#### (Tsinghua SEA)

Tsinghua SEA is the University's gateway to Southeast Asia. It offers non-degree education programs to support human resource development. Aligned with the Belt and Road Initiative and the UN's 2030 Sustainable Development Goals, it aims to boost international cooperation and promote sustainable development, working towards a more harmonious and inclusive global community.

#### Tsinghua University Latin America Center (Tsinghua LAC)

Located in Santiago's heart, the Tsinghua University Latin America Center is a key hub for fostering talent and promoting cultural and academic exchanges between Latin America and China. It aims to strengthen collaboration in research, build people-to-people connections, and advance science and technology, enhancing the partnership and innovation ties between Tsinghua University and Latin American countries.

#### China-Africa Leadership Development Institute

#### (CALDI)

Supported by UNESCO and initiated by Tsinghua, CALDI focuses on leadership and human resource development in Africa. It supports initiatives like the Ethiopia Smiling Children Feeding Program and the "China-Africa E-Classroom" to foster development and combat poverty. By emphasizing technological innovation, CALDI enhances African professionals' skills, preparing them to excel in the global economy.







#### Schwarzman College

In 2016, Schwarzman College welcomed its inaugural class to its highly selective program at Tsinghua University, aiming to create a global network of leaders to foster stronger ties with China and address global challenges. Annually, up to 200 scholars worldwide are admitted to pursue a master's degree, supported by a comprehensive scholarship, marking a step forward in educational innovation.

#### Tsinghua Shenzhen International Graduate School (SIGS)

Launched in March 2019, Tsinghua SICS leverages Tsinghua's resources and Shenzhen's entrepreneurial spirit to offer top-tier graduate programs. It emphasizes entrepreneurial education, industry-aligned programs, and groundbreaking research, fostering innovation and job creation. With a focus on interdisciplinary, international education and industry partnerships, SICS prepares students to address global challenges as innovators.



#### **Asian Universities** Alliance (AUA)

Climate Change

AUA, initiated by Tsinghua and founded in 2017 with 15 members from 14 Asian countries, has become a leading academic coalition. The AUA enhances Asian higher education through presidents' forums, academic conferences, and mobility programs. Key initiatives include the AUA Scholars Award, Staff Exchange Program, and online educational dialogues, fostering innovation, cultural exchange, and the development of future Asian leaders, thereby amplifying the global stature of Asian universities.

#### **Global Alliance of Universities on Climate** (GAUC)

GAUC was established in 2019 to tackle the urgent challenge of climate change, bringing together 15 universities from nine countries across six continents. This collective initiative is dedicated to advancing climate change mitigation through joint research, talent cultivation, campus action, societal implementation, and public engagement. Recognized by international climate leaders, GAUC's formation marks a significant global academic commitment to addressing environmental issues, emphasizing the urgency and global nature of the climate crisis.

#### **Global MOOC and Online Education** Alliance

Climate Change

The Global MOOC Alliance, officially launched in 2020 during the Global MOOC Conference cohosted by Tsinghua and UNESCO IITE, focuses on enhancing the quality of global MOOC and online education. Aimed at promoting lifelong learning opportunities for all, the alliance aligns with the United Nations Sustainable Development Goal 4. It seeks to address the digital education challenges, fostering international cooperation and exchanges in educational technologies and innovation. The alliance has become a pivotal platform for building a diverse community of universities and online education platforms worldwide.

## **COP**28**UAE**

#### **UK-China Humanities Alliance for Higher Education**

Spearheaded by Tsinghua, the UK-China Humanities Alliance for Higher Education stands as a testament to the growing significance of humanities in international education and relations. This coalition acknowledges the pivotal role of humanities in deepening mutual understanding and trust and in advancing human civilization by driving humanities discourse and equipping future leaders with a nuanced grasp of today's intricate global challenges. Since its establishment, the alliance has grown to include 18 member institutions, reflecting its expanding influence and commitment to fostering global intellectual exchange.

Aiming to conduct essential research on critical societal challenges, meet fundamental development needs, and link academic studies with talent nurturing, Tsinghua University is committed to advancing scientific innovation and addressing global issues.

# RESEARCH & INNOVATION

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#### Tsinghua initiates "Carbon Neutrality and Energy System Transformation" multilateral joint research project

In an era characterized by the pressing need for sustainable solutions, Tsinghua University stands at the forefront of global innovation with its pioneering endeavor: the "Carbon Neutrality and Energy System Transformation (CNEST)" multilateral joint research project. Initiated in November 2023, this ambitious project embodies Tsinghua's commitment to catalyzing transformative change on a worldwide scale. By bringing together leading universities, enterprises, scientists and engineers from across the globe, Tsinghua is fostering a collaborative ecosystem dedicated to accelerating progress towards carbon neutrality and the development of future energy system.

Through interdisciplinary collaboration, scientists worldwide will engage in groundbreaking research across systematics of low-carbon energy transition, global carbon network, future energy network and connection technology, low/zero/negative carbon technology, and digital twin technology. This collaborative research effort, coupled with technological innovation and the knowledge dissemination, underscores Tsinghua University's commitment to catalyzing meaningful change and charting a path toward a more sustainable future for generations to come.





The RISE of MODERN CHINESE THOUGHT WANG HUI

#### Wang Hui's magnum opus The Rise of Modern Chinese Thought named the Best Academic Book of 2023

The English edition of Distinguished Professor Wang Hui's magnum opus *The Rise of Modern Chinese Thought* was published by Harvard University Press. The 1088-page masterpiece, acclaimed as "Summa Theologica for China", was named the Best Academic Book of 2023 by the British political and cultural magazine The New Statesman.



#### Minimally Invasive Brain Computer Interface helps tetraplegia restore hand functions

An implanted brain-computer interface (BCI) can assist severely disabled persons in communication and active rehabilitation. Nevertheless, sustainable BCI implants require minimal invasiveness. A team led by Prof. Bo Hong from Tsinghua Medicine proposed the principle and design of a minimally invasive BCI in 2013. Over the past ten years, they have developed a miniaturized epidural BCI implant of 25mm-diameter size that can be fitted in the skull, with no battery included. Power was supplied remotely through inductive high-frequency antenna, and the epidural ECoG were transmitted wirelessly to the receiver attached outside the scalp. The NEO system has been tested on white pigs, demonstrating its capacity of stable long-term recording of epidural ECoG while keeping cortical neurons intact. Compared with BrainGate, Neuralink and other implanted BCIs, our NEO system has validated a new approach of balancing intracranial BCI performance and invasiveness.

With ensured minimal invasiveness and longterm safety, the clearance of clinical trials has been received for first-in-human study early in 2023. The first implantation of the NEO system was completed on October 24, 2023, in Beijing Xuanwu Hospital, and the second on December 19, 2023, in Beijing Tiantan Hospital. Both patients with spinal cord injury are expected to improve the motor functions of his hands with help of NEO BCI. The first patient became tetraplegic 14 years ago in a car accident. Implanted with NEO wireless BCI system, he has started BCI



training at home and been successful in grasping a bottle with a prosthetic hand. With the help of a machine learning algorithm, the patient can independently eat and drink by himself. With further development of the system, the patient will be able to restore multiple hand movements and functions. The next phase of the study is to develop a new protocol of BCI facilitated active rehabilitation to accelerate neural growth at the site of damaged spinal cord segments.

#### Launch of The Tsinghua University Warring States Manuscripts: Studies and Translation series

Launch of The Tsinghua University Warring States Manuscripts: Studies and Translation series was held in Tsinghua University, marking the publication of its first volume *The Yi Zhou Shu and Pseudo-Yi Zhou Shu Chapters*, which was translated and authored by Professor Edward L. Shaughnessy from the University of Chicago. The successive publication of this series of English translations helps domestic and international academia understand and utilize the Tsinghua Bamboo Slips, contributing to the broader understanding and study of the Tsinghua Bamboo Slips and Chinese unearthed texts.

#### Astronomers obtain direct glimpse of gas recycling in ancient galaxy

An international team of astronomers led by Zheng Cai, associate professor of astronomy at Tsinghua University, has provided direct imaging of a massive galaxy recycling gas 11 billion years ago.

They found gas around the galaxy is enriched with heavy elements, which means it has been polluted by the galaxy itself and by other satellite galaxies. The gas also spirals into the massive galaxy, fueling further star formation.

The discovery marked a step forward in the understanding of galaxy ecosystems, formation and evolution. With more observations, deeper insights into this intricate interplay will be offered.

According to Cai, corresponding author of the study, the chosen system, MAMMOTH-1, can be observed at an epoch corresponding to 11 billion years ago. It is a galaxy group embedded in largescale cold circumgalactic gas which shines brightly in multiple elements, such as Hydrogen, Helium and Carbon.

With all these diffuse emission, recycling inflow at high-redshift can be revealed, for the first time in the early Universe.

#### Chinese HTR-PM Demo begins commercial operation

Following a 168-hour demonstration run, HTR-PM (High Temperature gas-cooled Reactor Pebblebed Module) Demo in Shidao Bay, Shandong Province of China, the world's first modular high temperature gas-cooled reactor nuclear power plant, entered commercial operation on December 6, China's National Energy Administration (NEA) has announced.

The plant consists of two HTR-PM reactor modules and a common steam turbine. The construction permit was issued, and the first concrete was poured on December 9, 2012. The operation permit was granted on August 20, 2021, and the plant was connected to the grid on December 20, 2021. It is operating at 2×200MWt power currently. The plant employs more than 2,200 sets of first-of-a-kind equipment, and more than 660 sets of innovative equipment. The supporting fuel element production line has the largest production capacity in the world.







## Accelerated crash tests for autonomous vehicles

One of the major roadblocks for fully autonomous vehicles is effective safety testing software. Testing autonomous cars on actual roads is incredibly time consuming, expensive and potentially hazardous to other drivers.

Because of the limits to obtaining real-world data, the accuracy of artificial intelligence (AI) simulation testing – which is less dangerous but relies on the input of real-world data for accuracy – is also constrained, explains Shuo Feng, an alumnus from Tsinghua University's Department of Automation.

To get enough data on real-world hazards for Al simulations, each physical test vehicle needs to drive for hundreds of millions to hundreds of billions of kilometres, which isn't practical.

But now, in a paper published in the journal *Nature* in March 2023, Feng and a team from the University of Michigan in Ann Arbor, US, report on a method to boost the speed of autonomous vehicle safety testing by up to 100,000-fold.

"This type of research will be critical for manufacturers, governments, and third-party agencies, such as insurance agencies, who will ultimately decide whether AVs are ready for largescale deployment," explains Feng. "It will also be important for customers, who will need to have more confidence in the autonomous vehicles."

#### Scientists develop fully integrated memristor chip for energy-efficient edge learning

Chinese scientists have developed a fully integrated memristor chip with improved learning ability and low energy cost, according to a study recently published in the journal Science.

With artificial intelligence (AI) technology profoundly changing the way of production and life, learning becomes highly important for edge intelligence devices in order to adapt to different application scenarios.

Based on 11 years of research, scientists from Tsinghua University developed a full-systemintegrated chip consisting of multiple memristor arrays and all the necessary peripheral circuits to support complete on-chip learning.

This study is an important step toward future chips with high energy efficiency and learning capabilities, said Wu Huaqiang, dean of Tsinghua's School of Integrated Circuits.





National **Research Center** 



**State Key** Laboratories



**National Engineering** 

**Research Centers** (Laboratories)

**Key Laboratories** of the Ministry of

Education



Collaborative **Research Centers** 

## Laboratories

Tsinghua University has taken a significant step towards fostering innovative and cross-disciplinary research by establishing nine interdisciplinary institutes. These centers span a diverse array of fields such as unmanned systems, internet of vehicles, flexible electronics, brain and intelligence, big data, artificial intelligence, and medical engineering, pushing the boundaries of traditional academic disciplines and spearheading advancements in emerging areas of technology and science.

## Recognition

Tsinghua University's faculty showcased exceptional achievement on both national and international stages. From 2020 to 2023, their remarkable efforts were recognized with 16 national awards, including the esteemed State Preeminent Science and Technology Award, three State Natural Science Awards, two State Technology Invention Awards, and ten State Scientific and Technological Progress Awards. Furthermore, in the year 2023 alone, Tsinghua's faculty members received widespread acclaim, clinching 123 international awards.



State Preeminent Science and Technology Award
State Natural



State Technology vention Award





International Awards





## Innovation and Entrepreneurship Education

At Tsinghua, we are driven by the conviction that every student harbors the potential for groundbreaking innovation. Our mission extends beyond education – it is about knowledge transfer, ability cultivation, and value shaping. To this end, Tsinghua has developed a robust ecosystem that integrates these principles into our comprehensive talent development strategy, fully supporting our students in areas of creativity, innovation, and entrepreneurship.



The Student Future Innovation Group

inspires creativity, urging students to forge crossgrade, interdisciplinary teams and spearhead their unique innovation projects.



**The iCenter** serves technological innovation and is the world's most expansive campus "maker" space.



The Art and Technology Innovation (ATI) Base serves design innovation. It is a CreaTech fusion incubator that leads the way in the creative industry, driven by a vision of future aesthetics.





**Chuangplus, x-lab, and i-Space** support entrepreneurship by connecting startups with essential market resources and offering access to expert mentorship from seasoned professionals beyond the campus boundaries. 28

EPICIALS

#### PROFILE

INC NOT FUNCTING for 30 years (ANTANIA DAN'T SPEND ENDUST HOMEY ON REVENDING ANTIELOTICS ANTI-MICROWAL RESISTANCE (OVED-PASSAINTON + MISSE) MEDICAL EDUSTION PROBLEM LACK OF PROATINTY FROM BOVERNMAR CLIMMETE CHANNEL CHIERE TO PROMINING HEALTH (MORE MUSCI) CONTONE NOT FLOORE AND FLOORDAN STEP (SLOBAL WITH REPORTED USED ANTIPOTION - ANTIFICTOR

STUDY NGHUA



#### **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 & Fashion Design Department of Visual Communication

#### Department of Chemical Engineerin

Department of Electrical Engineering Department of Engineering Physics Institute of Education Institute of Nuclear and New Energy Technolo

#### 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 Technolog

Beijing National Research Center for Information Science and Technology Department of Automation Department of Computer Science and Technology Department of Electronic Engineering Institute for Network Sciences and Cyberspace 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 Safety Sciences

#### 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

Clobal Innovation Exchange Institute National Graduate College for Engineers Schwarzman College Shenzhen International Graduate School

Qiuzhen College Rixin College Tanwei College Weixian College Weiyang College Xingjian College Xinya College Xiuzhong College Zhili College

Institute for Advanced Study Institute for Al Industry Research Institute for Aero Engine Institute for Carbon Neutrality Institute for International and Area Studies Institute for Interdisciplinary Information Sciences Institute of Multidisciplinary Biomedical Research Laboratory of Brain and Intelligence Laboratory of Low Carbon Energy The Future Laboratory Yau Mathematical Sciences Center

Center for Arts Education Division of Sports Science and Physical Education Language Centre Research and Conservation Center for Unearthed Texts

## Undergraduate Education

Founded in 1925, Tsinghua University's undergraduate program spans an extensive range of disciplines. It offers 91 majors in fields such as science, engineering, arts, history, and more, complemented by 40 minors.

At the core of Tsinghua University's undergraduate education is a unique three-pronged approach that integrates the shaping of values, the cultivating of skills, and the imparting of knowledge. Emphasizing a comprehensive liberal arts curriculum, Tsinghua fosters holistic development across humanities, arts, social sciences, and technology. In today's globalized context, Tsinghua produces well-rounded individuals equipped with innovative thinking, a global outlook, and a profound sense of social responsibility.

To cultivate talents adaptable to future challenges, Tsinghua has established nine innovative colleges that implement a truly studentcentered educational approach. These colleges harmonize the depth of general education with the precision of specialized professional training, offering a curriculum designed to foster



#### **A Legacy of Excellence**



Undergraduate Majors



a world-class, distinctly Chinese, and holistic Tsinghua undergraduate experience. Central to our educational ethos is the cultivation of each student's individual potential, tailoring their academic paths through flexible major selections and the exploration of unique interdisciplinary fields. This nurturing environment is further enriched by the close-knit relationships between students and faculty, fostering a community that collaborates and thrives together.

#### **Academic Programs** with **Distinction**





Master's and **Doctoral programs** entirely in English

3,199 **Graduate courses** offered in 2023

179 Professional practice base

## Graduate Education

Tsinghua's graduate programs exemplify innovation and academic rigor, deeply rooted in our rich history of pushing the boundaries of knowledge. The University offers an unparalleled research environment, backed by substantial funding and resources, ensuring students receive focused academic mentorship. Tsinghua's faculty, renowned for their international expertise, together with a comprehensive suite of high-caliber English-taught courses and robust global university partnerships, create a rich educational tapestry. Furthermore, Tsinghua provides unique practical courses and internship opportunities, especially designed for international students to enhance their professional competencies and industry insights, setting a benchmark for graduate education worldwide.

To broaden international graduate students' comprehension of China, a specialized suite of courses titled "Understanding China" has been developed. This collection includes 25 courses that delve into various facets of Chinese society, including culture, ideology, architecture, the environment, energy, governance, and social dynamics. Aimed at providing a multifaceted perspective of China, these offerings strive to deepen students' insights into China's distinctive role on the global stage.

## Continuing **Education**

At Tsinghua, we believe that learning is a lifelong journey. Our Continuing Education programs are crafted to extend Tsinghua's rich academic heritage and transformative educational experiences beyond the traditional campus boundaries. Integrating the teaching strategies and skill sets of both East and West, programs are designed to meet the evolving needs of a diverse global community. We offer cutting-edge courses and certificate programs designed for lifelong learners seeking to advance their careers or explore new fields.



280+ **Global hybrid** classroom courses



#### 132.000.000+ **XuetangX learners**



#### 17.200.000+ Global participants in China's perspective on global

development initiative



## Online **Education**

Tsinghua University is at the forefront of educational innovation, championing online education to forge a more open, integrative, and resilient academic landscape.

Tsinghua integrated AI teaching assistants into courses, employing advanced language models to tailor learning experiences across diverse disciplines, aiming to enhance students' understanding of complex concepts and provide a more personalized learning experience.

The Global Hybrid Classroom at Tsinghua is a dynamic platform for cross-cultural academic engagement, offering students from around the globe the opportunity to participate in over 280 of Tsinghua's online courses, creating a globally interconnected educational ecosystem.

Founded in 2013, XuetangX, China's first MOOC platform, has attracted 132 million learners from 183 countries and regions around the world who have taken more than 8,500 courses covering science and engineering, agricultural medicine, economics, law, art, and other disciplines for free.

China's Perspective on Global Development Initiative, which attracted over 17.2 million global participants to date, provides indepth insights into China's societal, economic, cultural, and technological progress, fostering a comprehensive understanding of its pivotal role in global development.

## Resources

## Library

Tsinghua University Library stands out for its unique combination of historical treasures like oracle bones, and modern digital resources. It is housed within its Main Library and six specialized branch libraries, all supported by an advanced information infrastructure to enhance global academic engagement.

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#### 5.529.200+ Volumes housed in our libraries

222.500+ Ancient and rare items in collections





9.581.600+

E-books





# Art Illuminated a World of L a World of Inspiration

### **Art Museum**

As a respected art venue, the Tsinghua University Art Museum captivates with its extensive collection, from ancient porcelain to modern embroidery, attracting over 3.5 million visitors. In 2023, it featured groundbreaking exhibits such as "The Craft of Metalwork," delving into Eurasian metallurgy, "Crossing Parallels," celebrating German design evolution, and "Stilled Melody," with contemporary ceramic art. Showcasing exquisite exhibitions from across time and cultures, it invites all to explore the beauty and wonder of the art world, embodying its mission to bridge the past with the present and the domestic with the global in a celebration of artistic magnificence.

## **Science Museum**

Tsinghua University Science Museum (in development) is a space that brings to life the monumental scientific discoveries and technological inventions that have shaped the course of history, while also showcasing the achievements of Tsinghua's own researchers in science and engineering. With an array of online and offline exhibitions, complemented by public educational activities, the museum aims to foster a vibrant culture of science communication, sparking curiosity and driving forward scientific and technological progress. As a new landmark on the Tsinghua campus, it is poised to ignite a passion for science and technology among all its visitors.

## **Science Unraveled** the Quest for Discovery





## Arts

At Tsinghua, the celebration of the arts extends beyond the classroom into a realm of extensive opportunities for creative expression. The Center for Arts Education offers more than 170 arts courses. This vibrant ecosystem supports creative minds in honing their craft, offering spaces for presentation and performance that invite students to exhibit their work and engage in meaningful dialogue around both historical and contemporary visual cultures. This vibrant artistic community offers ample opportunities to exhibit work, perform, and immerse in the arts, fostering a rich environment for creative exploration.

28,000 m<sup>2</sup>



**Performance spaces** 

Performances introduced annually

## Canvas of Creativity



#### 500+

Cultural, artistic, and major events held annually, both on and off campus



100,000+ **Attendees annually** at events

# A Tradition of Friumph

## **Sports**

"No Sports, No Tsinghua" encapsulates Tsinghua University's deep commitment to athletics, reflected in its impressive lineup of 57 sports teams, an expansive offering of more than 60 different sports courses, and more than 1,400 student athletes. This dynamic program, rooted in the Division of Sports Science and Physical Education since 1912, promotes a legacy of competitive spirit and sportsmanship. Tsinghua's athletic tradition celebrates physical achievement and the relentless pursuit of excellence. The Ma Yuehan Cup, a highlight of the annual sports calendar, is a testament to this enduring spirit.



## 230,000 m<sup>2</sup>

**Dedicated to sports** facilities

2



**Types sports** facilities available



## Dining

Tsinghua's dining experience celebrates the rich culinary diversity of China and the world, serving a feast of flavors that span continents across its myriad dining venues. From canteen-style comfort foods to gourmet international experiences, Tsinghua's dining landscape is a mosaic of global cuisines, thoughtfully designed to satisfy every palate. Emphasizing variety and inclusivity, the University meets every dietary need and preference, while maintaining a commitment to sustainable dining practices. The Food Festival is a highlight, offering a culinary expedition through China's regional delicacies and international favorites, truly embodying Tsinghua's all-inclusive spirit.





served dailv

## A Culinary Mosaic



## Living

Living at Tsinghua transcends ordinary accommodation, emphasizing community, comfort, and an enriching student experience. The residence buildings, equipped with modern amenities like air conditioning, hot showers, Wi-Fi, and communal spaces for study and leisure. Tsinghua ensures its living spaces not only provide comfort but also nurture a sense of belonging and community, enabling students to thrive academically, creatively, and socially.



65 Dormitory buildings









## **Supports** and Services

Tsinghua University's holistic approach to education is reflected in its wide array of support services and centers dedicated to ensuring students' success both academically and personally. From career guidance to global competence development and psychological counseling, Tsinghua offers a robust support network. The on-campus hospital further underscores Tsinghua's commitment to the well-being of its community, providing comprehensive healthcare services for everyone.



# TSINGHUA ALUMI

### 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 an 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 wellrenowned scientists and entrepreneurs.

### Tsinghua Alumni Association

The Tsinghua Alumni Association was founded in June 1913. Currently, it has 87 regional associations in China and 56 branch associations around the world. They organize many events and activities that connect our alumni from all walks of life, building a close-knit Tsinghua community despite physical distances.



JOIN TSINGHUA

# 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.

#### **Undergraduate Admission**

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

#### **Graduate Admission**

Tel: +86-10-62781380 Email: grad@tsinghua.edu.cn Website: https://yz.tsinghua.edu.cn/en/

#### Non-Degree Program

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

### Shuimu Tsinghua Scholar

Tsinghua University's commitment to fostering academic excellence is epitomized by the launch of the Shuimu Tsinghua Scholar Program. This postdoctoral initiative is tailored to nurture young scholars, supporting their academic endeavors and aiming to develop leaders in research across more than 50 fields.

For more information on the program, please visit: https://postdoctor.tsinghua.edu.cn/info/zxtz/2174







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