

Academic Integrity at Tsinghua University: Policies and Practices

Qikun Xue



Contents

1. Facts & Figures of Tsinghua
2. Building Academic Integrity System and Cultivating Integrity Culture
3. Problems in Building Academic Integrity System



1、 Facts & Figures of Tsinghua

As of Dec. 31, 2018	Number
Schools	20
Departments	58

Information Science and Technology

Aerospace

Architecture

Medicine

Law

Public Policy and Management

Humanities

Marxism

Mechanical Engineering

Finance

Tsinghua University

Material Science and Engineering

Civil Engineering

Natural Sciences

Life Sciences

Economics and Management

Journalism and Communication

Arts and Design

Environment

Social Sciences

Pharmaceutical Sciences

As of Dec. 31, 2018	Number
Faculty and Staff	14,326
Academician of CAS	51
Academician of CAE	37
Postdoctoral Researchers	1,958
Undergraduate	15,619
Master and Ph.D	32,143
International Students	2,865
National Basic Science Center	1
State Key Laboratories	13
MOE Key Laboratories	17
Beijing Key Laboratories	19
National Engineering Centers	7
Joint Research Institutes	>100



1、 Facts & Figures of Tsinghua

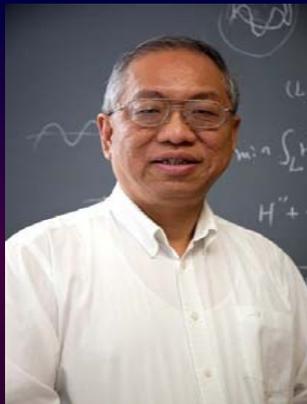
Distinguished Faculty Members



Chen-Ning Yang
Nobel Laureate
in Physics



Andrew Chi-Chih Yao
Turing Award Winner



Shing-Tung Yau
Fields Medalist



Yigong Shi
Gregori Aminoff
Prize Winner



Qikun Xue
Winner of the Future
Science Prize 2016

1、 Facts & Figures of Tsinghua

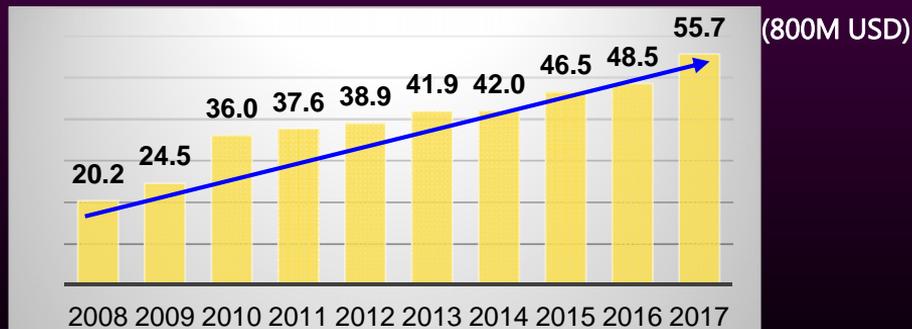
Global Rankings

	QS	THE	ARWU
2019	17 (1st in Asia)	22	50
2018	17	22	45
2017	25	30	48
2016	24	35	58
2015	25	47	107
2014	47	49	110

SCI Publications



Annual Research Funding in 100 million RMB



Patent Portfolio



2、 Building Academic Integrity System and Cultivating Integrity Culture

-Academic Atmosphere and Integrity: Tsinghua's Perspective

(1) Pursuit of academic excellence, independent academic judgement, and a well-established academic integrity system are the basic requirements of a world-class university.

(2) Academic atmosphere is the essential part of a university's culture, fully demonstrating its tradition, philosophy and the quality of education and talent cultivation.



2、 Building Academic Integrity System and Cultivating Integrity Culture

-Academic Atmosphere and Integrity: Tsinghua's Perspective

(3) Academic integrity education and promoting academic atmosphere deeply relate to the ultimate question of “How to educate” and “who will be educated”, which is essential to ensure the quality of education and talent cultivation. It is the inherent pursuit of a university and also an essential requirement for comprehensively improving the quality of higher education.

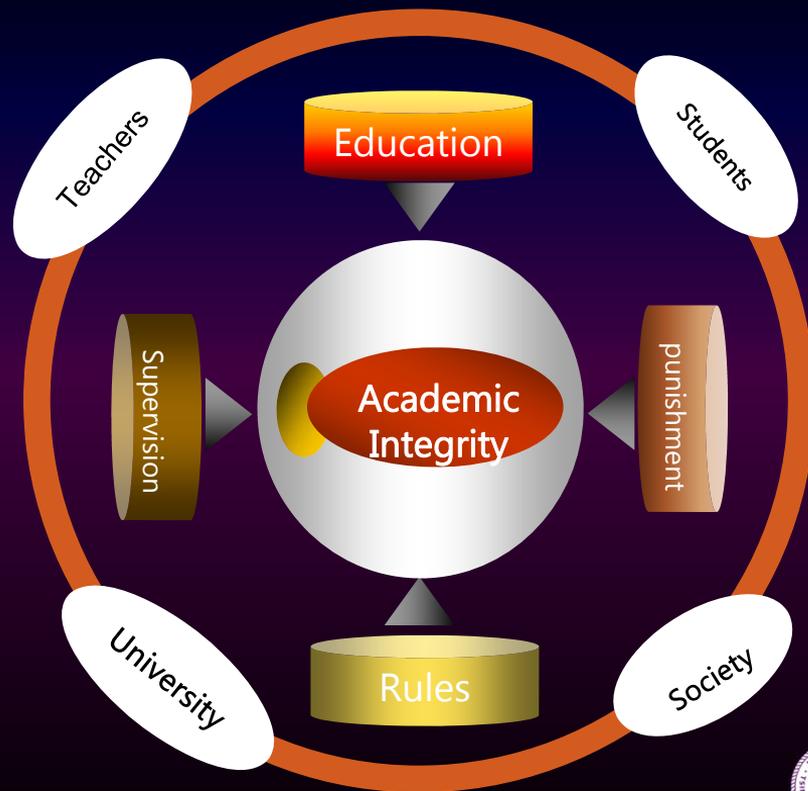
(4) At Tsinghua we have built a “rigorous, diligent, truthful and innovative” academic atmosphere to guide our faculty and students to pursue their study and research rigorously and to be a person of integrity.



Academic Integrity Mechanisms

Four Mechanisms

- Rules and regulations (foundation)
- Education (core)
- Supervision and restriction (guarantee)
- Investigation and Discipline of Academic Misconduct (bottom line)



(I) Fundamental Rules and Regulations

- ◆ In the academic year 2003-2004, Tsinghua issued the following three rules under the guidance of the “**Several Opinions of the Ministry of Education on Strengthening Academic Integrity**”:

(1) Several Opinions of Tsinghua University on Strengthening Academic Integrity

- Guiding document to answer the question of “**what to do**” on academic integrity
- Code of conduct for researchers at Tsinghua

(2) Academic Ethics Code for Teachers of Tsinghua University (For Trial Implementation)

- Practical guidelines to answer the question of “**how to do**”
- Includes 10 chapters on confidentiality and IP, norms of citation, authorship and acknowledgement, peer review, protection of human subjects and etc.



(I) Fundamental Rules and Regulations

(3) Interim Measures of Tsinghua University on Handling Academic Misconduct (For Trial Implementation)

- Answers the question of “**how to deal with misconduct**” .
 - Includes sections on the definition and scope of academic misconduct, principles for handling misconduct, report and whistle-blowing, investigation, discipline and etc.
- ◆ In 2016, Tsinghua issued a new “*Measures for Preventing and Handling Academic Misconduct in Tsinghua University*” in accordance with MOE’s *Measures for Preventing and Handling Academic Misconduct in Colleges and Universities* enacted in the same year.
- Specifies who shall be responsible for accepting and reviewing allegations of misconduct
 - Provides more detailed procedure on investigation of academic misconduct



(I) Fundamental Rules and Regulations

- ◆ In July 2018, we issued "*Tsinghua University Code of Academic Ethics*", which stipulates the principles that academic researchers should follow in academic research, project application, research collaboration, academic evaluation, etc.
- ◆ Other important rules include:
 - Code of Scientific Ethics for Graduate Students of Tsinghua University
 - Several Opinions of Tsinghua University on Strengthening the Work of the Academic Committee
 - Articles of Association of the Academic Committee of Tsinghua University



(II) Integrity Education

- ◆ Our goal is to establish a comprehensive, flexible and multi-level education and training system for all faculty members with focus on teacher's professional ethics.
- ◆ We require new faculty members to take courses on academic ethics during their orientation.
- ◆ Faculty who receive awards of "Ethical Model of Teachers", "Good Teachers and Friends", "New Academics" and etc. will be highly respected and vigorously promoted in the university.
- ◆ We also require freshmen and new graduate students to learn about academic ethics as one of their first courses in the university.



(II) Integrity Education

- ◆ **Academic integrity education has been incorporated into Tsinghua's regular courses:**
 - **Special courses on academic norms and professional ethics featuring different requirements for different disciplines.**
 - **Optional courses open to all undergraduate and graduate students, such as "Scientific and Technological Research Paper Writing", "Spirit of Science and Misconduct" , "Scientific Ethics" and etc.**



(II) Integrity Education

Use Various Platforms to Achieve Full Media Dissemination of Academic Ethics

- ◆ Prepare reading materials such as “Handbook on Research Integrity and Academic Norms” and “Graduate Students Handbook on Academic Ethics and Norms” and incorporated the following in those handbooks:
 - Regulations and requirements of well-known universities and research institutions both domestic and abroad
 - Cases that have been publicly discussed
 - Examples of common mistakes made by graduate students when writing papers
- ◆ Use New Media Platforms
 - Website specially designed for Tsinghua Graduate Students Integrity
 - Sina Weibo, Renren and other popular social media platform



(II) 2019: "Year of Promoting Academic Atmosphere"

No.	Event	Description
1	Workshop	Young faculty members workshop on teaching reform
2	Publicity	Create a special column
3	Conference	Publish new academic evaluation policy
4	Panel discussion	Discussion Salon on Wechat
5	Forum	Basic Education Summit
6	Workshop	Young Faculties Wechat Salon
7	Publicity	Report on new academic evaluation policy

No.	Event	Description
8	Conference	To alert all faculties and student of the consequences of bad behavior
9	Workshop	Exchange and discussion
10	Lecture	Graduate students orientation
11	Lecture	Undergraduate Orientation: the First Course
12	Lecture	Undergraduate Orientation: Academic Ethics and Life
13	Exam	Academic Ethics Test for New Faculties
14	Lecture	Academic Ethics Lecture

(II) 2019: "Year of Promoting Academic Atmosphere"



May 5th, 2019, Wrap-Up Session

- "Strict" is the most important requirement in Tsinghua's academic atmosphere.
- Strictly hold the bottom line and never cross the "red line" of integrity.

(III) Supervision and Restriction

We constantly improve the supervision mechanism to prevent academic misconduct:

- **Strict review of faculty’s application materials for tenure and promotion (candidates information are open to the public);**
- **Since 2003, applications for full professorship are subject to anonymous peer review;**
- **If the reviewers raise any questions on the authenticity and/or creditability of the application materials, or on the applicant’s guidance/instruction of students, thorough investigation will be required. If any misconduct does exist, the application for full professorship will be “one vote vetoed”.**



(III) Supervision and Restriction

- ◆ Since 2009, as a pilot project, some schools/departments have used the “Degree Dissertation Academic Misconduct Detection System” for evaluation of graduate thesis.
- ◆ Starting in 2010, academic normative checks are required for all degree dissertations which have:
 - Promoted faculty and students’ awareness of academic norms of dissertations;
 - Improved their ability identify academic misconduct;
 - Made academic integrity inspection more normalized and systematized;
 - Significantly reduced overlapping texts in degree dissertations.



(III) Supervision and Restriction

- ✓ **Academic committees at both the university level and the department level play the key role in the investigation and discipline of academic misconduct**
- ✓ **Sub-committee on academic ethics is responsible for organizing academic ethics education activities, investigating and reviewing academic misconduct, and providing disciplinary suggestions.**
- ✓ **We have zero tolerance on academic misconduct. Once confirmed, our university will handle it seriously in accordance with relevant regulations and procedures.**



(IV) Investigation and Discipline of Academic Misconduct

- ✓ **In 2005, a faculty member named Liu in the Medical School intentionally fabricated research experience and misrepresented other people's achievements in his resume available to the public. After investigation, the university revoked his professorship and terminated his employment with Tsinghua.**
- ✓ **In 2009, the University Academic Committee found out that there was obvious plagiarism in a postdoc's published papers and terminated his postdoctoral study.**
- ✓ **In 2014, the final project report submitted by a faculty named Liu in the Department of Mechanical Engineering was found to be basically identical to his application proposal for this project with no substantial research being conducted. A great portion of the project results were found to be fabricated. Liu's employment was terminated by the university after investigation.**
- ✓ **In 2017, papers published by a graduated Ph.D. student and his supervisor were found to be self-plagiarizing, re-using images and fabricating experimental results. The university decided to revoke the Ph.D.'s doctoral degree and required the supervisor to retire early.**



3、 Problems in Building Research Integrity System

◆ Positive guidance needs to be strengthened

- Some students are still not familiar with the university's rules and regulations on academic integrity, which weakens the restrictive and disciplinary function of the academic code of conduct.

◆ Gray areas in perception of the line between academic norms and misconduct

- Some faculty and students are not sure whether duplicate submission, co-authorship hitchhiking and other questionable but not so serious practices constitute research misconduct.

◆ Disciplinary measures are not so effective due to lack of restrictive power

- There are no disciplinary measures for not-so-serious plagiarism in coursework and papers.
- Not enough resources to detect all misconduct activities such that some people tend to take their chance.



3、 Problems in Building Research Integrity System

◆ Problems in Handling Special Issues

- Problems from the Past:
 - ✓ Citation problems may be attributed to the loose citation norms in the past.
- Unclear Norms/Standards for Some Cases:
 - ✓ Is it "duplicate submission to submit the Chinese version of a paper to a Chinese journal and the English to an international version?"
 - ✓ different disciplines may have different attitudes towards duplicate submission



Thank you for your attention!

