

International Undergraduate Admissions 2020

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CONTENTS

02	JI AT A GLANCE
04	SHANGHAI
06	SJTU CAMPUS
08	EDUCATIONAL PROGRAMS
14	INTERNATIONAL PROGRAMS
18	FACULTY
19	SPOTLIGHTS ON INTERNATIONAL STUDENTS
20	UNDERGRADUATE PLACEMENT 2010-2018
21	SCHOLARSHIPS
22	INTERNATIONAL ADMISSION REQUIREMENTS
24	EXTRACURRICULAR ACTIVITIES

MESSAGE FROM THE DEAN

Dear Prospective Students,

Please enjoy this brochure describing what it's like to live and learn at The University of Michigan – Shanghai Jiao Tong University Joint Institute (UM-SJTU JI) – an elite engineering institution located in Shanghai, the largest and the most dynamic metropolis in China.

After more than a decade of innovation in higher education, the Joint Institute has developed an award-winning model of talent training. JI's undergraduate curriculum combines the best of what the University of Michigan and Shanghai Jiao Tong University have to offer. All the courses are taught in English by our internationally recruited faculty from top universities in the United States and other countries. With advanced degrees in subfields of science and engineering, mathematics, liberal arts, and business, JI's faculty bring their field-specific expertise to JI to engage undergraduate and graduate students in a breadth of learning and research opportunities. Two of our undergraduate majors, Mechanical Engineering and Electrical & Computer Engineering, have achieved ABET accreditation. As we foster engineering students' intellectual curiosity and creativity, we also train them to be critical thinkers, strong communicators, and effective leaders in their fields.

These are exciting times at the UM-SJTU Joint Institute, as we continue to build on our unique strengths. Two powerhouse universities had a vision for collaboration and their ongoing efforts have generated an amazing wealth of academic exchanges and multicultural encounters for our students.

I sincerely invite you to come and explore your future with us.

Warm regards,



Peisen Huang
Professor and Dean



JI AT A GLANCE

The University of Michigan-Shanghai Jiao Tong University Joint Institute was founded in 2006 by the University of Michigan and Shanghai Jiao Tong University with a goal of building a world-class teaching and research institute in China dedicated to nurturing future leaders.

2

ABET accredited
undergraduate majors



Engineering
Accreditation
Commission

4

research centers



19

dual-degree majors



50%

international faculty
members

The first Chinese
institute to win the
Andrew Heiskell Award
for Innovation in
International
Education

72%

faculty members with
national and municipal
talent awards

50%

success rate in obtaining
NSFC funding

Winner of the
National Teaching
Achievement Award

28

research laboratories



100%

engineering and science
faculty members with
Ph.D. degrees

40%

students receive
scholarships

27

international partners



SHANGHAI

SEE THE WORLD



- International economic center
- International financial center
- International technology innovation center
- International trade center
- International shipping center
- International financial center
- Multicultural environment
- Culinary variety
- Career opportunities
- Safe urban setting

SJTU CAMPUS

ENJOYABLE CAMPUS LIFE

- One of the most prestigious and oldest in China
- One of the internationally most highly-recognized universities
- One of the most internationalized universities in China
- 344 student associations
- Beautiful campus
- Access to robust library resources
- Six dining halls on campus with both Chinese and Western cuisines.
- 24-hour, free high-speed WIFI coverage on campus
- Many on-campus activities and venues including a cinema, bowling alley, multiple sports venues, piano room, karaoke, indoor swimming pool, etc.

EDUCATIONAL PROGRAMS

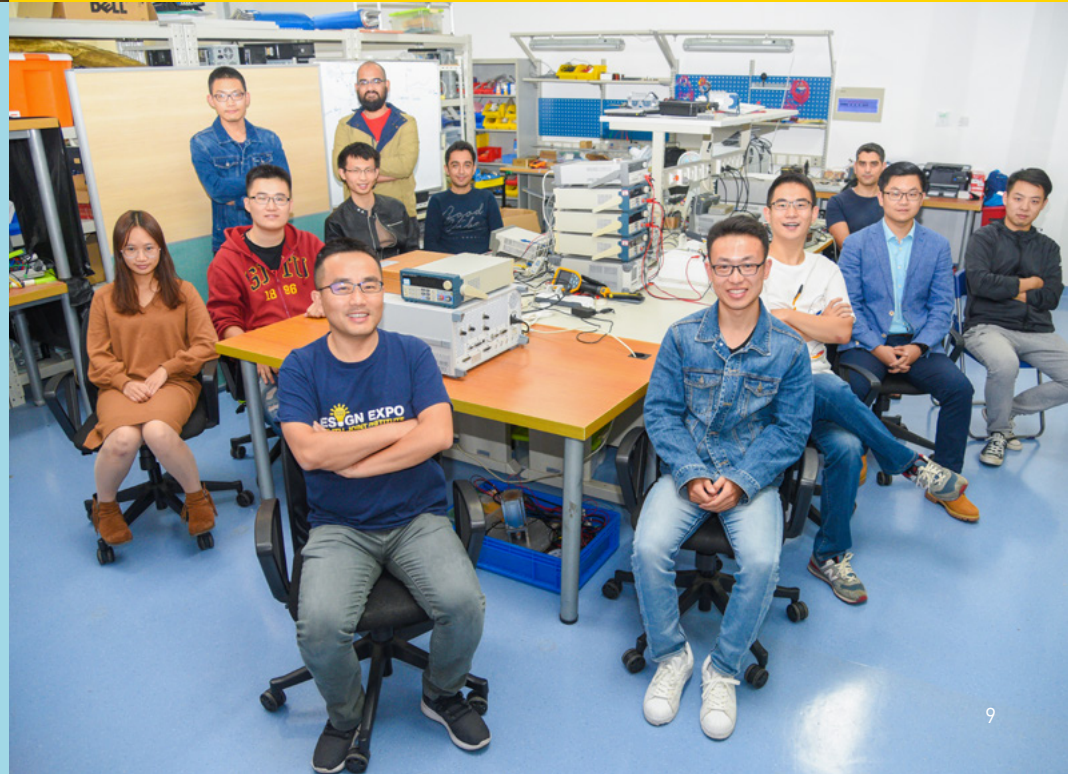


MECHANICAL ENGINEERING (ME) PROGRAM

The ME program is built on a common science and engineering core. It provides students with an excellent foundation in the core technical competencies of the following disciplines: thermal and fluid sciences, solid mechanics and materials, dynamics and control. An array of courses are offered to enable students to tailor their mechanical engineering education to best suit their career goals. Throughout the program, students work with modern laboratory equipment and computer systems. They are exposed to the most recent analytical techniques and technological developments in their field. Students also have many opportunities to engage with outstanding faculty, most of whom are actively engaged in research and professional consulting.

ELECTRICAL AND COMPUTER ENGINEERING (ECE) PROGRAM

The ECE program is an interdisciplinary program. It places emphasis on both hardware and software technology, as well as the students' capability to creatively apply the knowledge learned in classrooms to solve real-world problems. It provides students with a fundamental background in the basic theoretical concepts and technological principles of modern electrical and computer engineering. A flexible curriculum allows students to emphasize a wide variety of subject areas within the field including: circuits and devices, electromagnetics and optics, communications, signal processing and control, computer science and engineering. Students work with modern laboratory equipment and computer systems and are exposed to the most recent analytical techniques and technological developments in their field throughout the program.



MATERIAL SCIENCE AND ENGINEERING (MSE) PROGRAM

The main purpose of establishing an MSE program at JI is to internationalize the material science and engineering discipline at Shanghai Jiao Tong University (SJTU) with focuses in the areas of functional and non-metallic new materials, and to promote education and research collaborations between the University of Michigan and SJTU in the area of material science and engineering. The goal is to equip students with fundamental knowledge and hand-on experience of material science and engineering through various classes focused on metals, polymers, ceramics, and composite materials. The curriculum of the MSE program is built on a common science and engineering core and closely follows the curriculum of MSE program at .

MINORS

JI offers four minors*: 1) minor in Entrepreneurship to encourage students to apply practical skills to translate innovative ideas into real impact; 2) minor in Data Science to provide students with a basic understanding in the aspects of computer science, statistics, and mathematics that are relevant for analyzing and manipulating large complex datasets; 3) minor in Computer Science to expose students to the knowledge demands in a different discipline and help them acquire marketable skills; and 4) minor in Global China Studies to help students understand China from a global perspective, as well as to understand China's role in the global world. If planned well in advance of the senior year, a minor will not add to the credit load required for a Bachelor's degree at JI.

**Artificial Intelligence (AI) will soon be added as a fourth available minor.*

JOINT UNDERGRADUATE MASTER PROGRAM (JUMP)

Qualified JI undergraduate students may also be admitted to the Joint Undergraduate Master's Program (JUMP) in the first semester of their senior year. This program is developed to enroll qualified JI students in the Master's program at JI by double counting credits for both bachelor's and master's degrees. JI students admitted into JUMP spend more time on research rather than course work during their graduate study.

DUAL BACHELOR'S DEGREE PROGRAM WITH UNIVERSITY OF MICHIGAN (UM)

This program is designed to allow students entering the JI undergraduate program to earn two Bachelor of Science (BS) degrees from two different institutions in two different academic areas. It offers JI students a high-quality international educational experience and an opportunity to engage in international engineering efforts in cooperation between China and the United States. Students apply in their sophomore year to one of the 19 programs offered by the University of Michigan, including 17 programs in the College of Engineering and 2 programs in the College of Literature, Science and the Arts. Students spend time at both UM and SJTU taking the necessary courses required for both degrees. After completing each university's requirements, students will receive a BS Degree from UM, a BS Degree from SJTU, a Graduation Diploma from the Ministry of Education of China, and a JI Study Certificate jointly granted by SJTU and UM.

GLOBAL DEGREE PATHWAYS (GDP) PROGRAM

The Global Degree Pathways program gives students a head start on their Master's degree and provides a road map to their future area of specialization. Generally, the time to complete both JI's Bachelor degree and a partner university's Master degree can be as little as five years and students may gain international experience even in their senior year.

JI currently offers the following GDP Programs:

University of Michigan, United States College of Engineering

4+1 Pathway in Integrated Systems & Design

- > Master of Engineering in Systems Engineering and Design
- > Master of Engineering in Energy Systems Engineering
- > Master of Engineering in Automotive Engineering
- > Master of Engineering in Manufacturing
- > Master of Engineering in Global Automotive and Manufacturing Engineering

4+1 Pathway in Mechanical Engineering

- > Master of Science in Mechanical Engineering

4+1 Pathway in Electrical Engineering

- > Master of Science in Electrical and Computer Engineering

4+1 Pathway in Naval Architecture

- > Master of Science in Engineering, Naval Architecture and Marine Engineering

Ross School of Business

A Special 3.5+1 Pathway in Management

- > Master of Management

School of Information

3.5+2 Pathway in

- > Master of Science in Data Analytics
- > Master of Science in User Interface and Design

Department of Statistics, School of Literature, Science and the Arts

3.5+2 Pathway in

- > Master of Science in Applied Statistics

School of Environment and Sustainability

3.5+2 Pathway in

- > Master of Science in Natural Resources and Environment

Trinity College Dublin, Ireland

3.5+2 Pathway Master of the Engineering Arts in

- > Mechanical Engineering
- > Electrical Engineering
- > Computer Engineering
- > Electrical & Computer Engineering

Royal Institute of Technology, Sweden

3.5+2 Pathway

Degrees earned: Students obtaining a Bachelor's degree in Mechanical Engineering at JI may choose from one of the following majors at KTH:

- > Engineering Design
- > Engineering Mechanics
- > Naval Architecture

- > Vehicle Engineering

Students obtaining a Bachelor's degree in Electrical and Computer Engineering at JI may choose from one of the following majors at KTH:

- > Machine Learning
- > Media Management
- > Electrophysics
- > Electric Power Engineering
- > Network Services and Systems
- > Systems, Control and Robotics
- > Wireless Systems
- > Embedded Systems
- > Communication Systems
- > Medical Engineering
- > Communication Systems

University of California at Irvine, United States

3.5+2 Pathway Master of Science in

- > Mechanical Engineering
- > Electrical Engineering
- > Computer Engineering
- > Electrical & Computer Engineering

North Carolina State University, United States

4+1.5 Pathway Master of Science in

- > Mechanical Engineering
- > Electrical Engineering
- > Computer Engineering

University of Southern California

3.5+2 Pathway Master of Science at the USC Viterbi School of Engineering



SJTU UNDERGRADUATE ENGINEERING PROGRAMS IN ENGLISH

SJTU Undergraduate Engineering Programs in English International students who apply for SJTU's undergraduate English programs will spend one and a half years at JI. Thereafter, they may choose to continue their study at JI or transfer to another engineering school (in English or Chinese) to complete their bachelor's degree. Other engineering schools at SJTU include:

The School of Materials Science and Engineering

- Materials Science and Engineering

The School of Electronic, Information and Electrical Engineering

- Computer Science and Technology
- Information Engineering

The School of Naval Architecture, Ocean and Civil Engineering

- Naval Architecture and Ocean Engineering

The School of Mechanical Engineering

- Mechanical Engineering and Automation
- Power and Energy Engineering



INTERNATIONAL PROGRAMS



JI has established partnerships with leading overseas universities and institutions, providing students with numerous and diverse opportunities for an international education experience.

More than 80% of JI's students study abroad through these programs.



WINTER STUDY ABROAD PROGRAMS

These short-term study abroad programs are available to all JI students, although some require students to be in their sophomore or junior year. Most of the programs are offered from January to February, during JI's winter break.

JI currently offers the following destinations with various programs in engineering, social sciences and business:

- Institute of Technology Buenos Aires, Argentina
- University of Adelaide, Australia
- McGill University, Canada
- University of Technology of Troyes, France
- Technical University of Berlin, Germany
- Ritsumeikan University, Japan
- Sophia University, Japan
- Peter the Great St. Petersburg Polytechnic University, Russia
- University of Navarra, Spain
- University of Warwick, UK
- Tallinn University, Estonia

EXCHANGE PROGRAMS

Exchange programs are open to students in their sophomore year and above. Students can choose to attend the programs for one semester in JI's spring, summer and fall semesters or even stay for an entire academic year.

JI currently offers the following exchange programs:

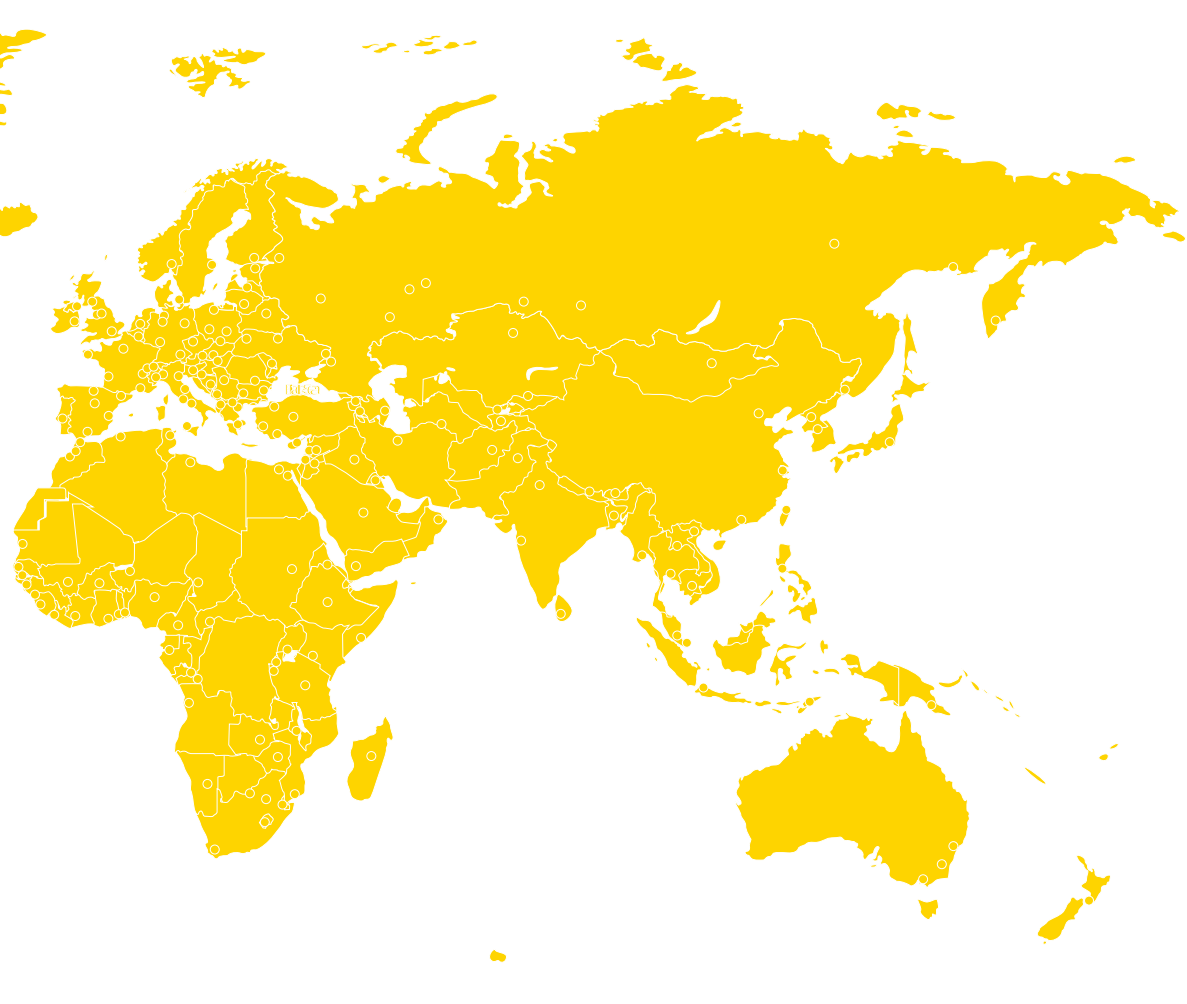
- Global E³, with over 70 worldwide member universities and institutions
- North Carolina State University, US
- University of Maryland, US
- University of Erlangen - Nuremberg, Germany
- RWTH Aachen, Germany
- Technical University of Munich, Germany
- Karlsruhe Institute of Technology, Germany
- KTH Royal Institute of Technology, Sweden
- Delft University of Technology, Netherlands
- University of Leuven, Belgium
- University of Warwick, UK
- Tecnun, University of Navarra, Spain

Further destinations are available through SJTU's international programs.



SUMMER AND FALL PROGRAMS

During the regular JI Summer and Fall semesters, international students from the University of Michigan and other foreign partner universities are invited to Shanghai to take academic courses at JI alongside other JI students. These programs offer international students an opportunity to immerse themselves in Chinese language and culture, while obtaining credits towards their engineering degrees in their home institutions. Various cultural excursions in Shanghai and across other areas of China are built into the program to provide visiting students an opportunity to interact with local as well as non-local students from all over the world.



FACULTY

Building a strong faculty team is key to JI's mission to cultivate future global leaders. Currently, JI has 61 faculty members, all who have either graduated from or worked at world-class universities or institutions.

JI faculty come from all over the world. All hold advanced degrees in subfields of science and engineering, mathematics, liberal arts and business. Committed to excellence in teaching and advising, JI faculty also hold themselves to the highest standards in scholarly research and serve as professional role models to students. The strong faculty team lays a solid foundation for JI to achieve its mission of fostering innovative researchers and leaders with a global perspective.

The international academic environment of JI allows faculty, visiting scholars, and students to keep up with the frontiers of technology. Currently, JI has 4 research centers and 28 research laboratories. JI's research projects are funded by Chinese national and municipal governments, local industries, and foreign entities.



Muhammad Ghazan Khattak (Mechanical Engineering, Class of 2018)

Coming from Pakistan to a completely different culture, I was scared(a little), but thanks to the JI family it has been an amazing year at JI. Along with its quality education, the amazing Chinese friends and the extracurricular activities here on campus make the life very enjoyable.

Rui Silva (Electrical and Computer Engineering, Class of 2018)

The college lifestyle most students think of is different from reality. Part of this reality is the realization that they have to adapt to the new surroundings as quickly as possible in order to achieve their objectives right away. Fortunately, at JI, I overcame all the obstacles and I couldn't be happier attending this exquisite institute!

Ashley Ng (Electrical and Computer Engineering, Class of 2019)

Taking courses in English, having professional conversations with foreign professors, playing a role in student-based services are part of every JIer's daily life. The international academic environment enables me to think with a global vision. I feel grateful to be part of JI.

Chapwit Na Muangtoun (Electrical and Computer Engineering, Class of 2020)

Studying at JI requires strong time management skills. Your mindset needs to be focused and ready when you come here. If you are seeking a unique challenge, JI will not let you down.

Richard Murray (Electrical and Computer Engineering, Class of 2021)

To any students who are considering JI, life here will most likely be different to your lives now whether you are Chinese students or international students. If you are looking for a new experience, I believe JI is the perfect place for you, but even if you are not, JI is still a great choice that will provide you with many different possibilities.

SPOTLIGHTS ON INTERNATIONAL STUDENTS

UNDERGRADUATE PLACEMENT 2010-2018

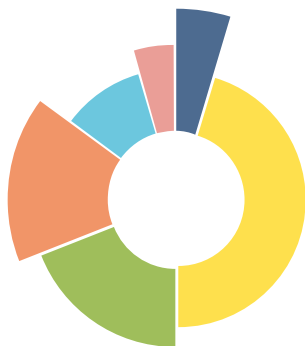
- Every year, more than 80% of JI graduates continue to pursue graduate study at top universities worldwide. 77% of those who choose to continue their studies at American universities enter top 20 engineering graduate schools.
- 100% of those who choose to enter the job market have been employed by leading domestic and multinational companies.
- Many alumni have taught at top universities, including Georgia Institute of Technology, Tsinghua University, University of Texas Austin, and Shanghai University of Science and Technology.
- JI alumni are also emerging in the field of entrepreneurship, some listed on Forbes Asia 30 under 30, Forbes China 30 under 30 business leaders.
- 100% of graduates who choose to enter the job market are employed by key industries and multinational companies at home and abroad, such as Huawei, Apple, Microsoft, Google, Intel, Amazon, Bosch, Commercial aircraft of China, Shanghai Volkswagen, Facebook, McKinsey Consulting, Boston Consulting, PricewaterhouseCoopers Consulting, etc., in China, the United States, the United Kingdom, Singapore, Japan and other regions.

STATISTICS OF JI 2010-2018 STUDENTS STUDYING AT U.S. GRADUATE SCHOOL

Massachusetts Institute of Technology	10	University of Southern California	92
Stanford University	46	Columbia University	60
University of California - Berkley	41	Cornell University	21
California Institute of Technology	2	University of California - San Diego	48
Carnegie Mellon University	72	University of California - Los Angeles	31
University of Michigan - Ann Arbor	509	Princeton University	8
Georgia Institute of Technology	34	University of Wisconsin - Madison	3
Purdue University	14	Johns Hopkins University	8
University of Illinois - Urbana-Champaign	23	Northwestern University	7
University of Texas - Austin	16	University of Pennsylvania	28
Texas A&M University	14		

JOB PLACEMENT

- Automotive & TransportEquipment 7%
- Computer Software & Services 42%
- Computer Hardware & Electronics 12%
- Manufacturing 18%
- Financial Services & Consulting 16%
- Government & Education & Research 5%



SCHOLARSHIPS

SJTU provides outstanding students a variety of scholarship opportunities, such as Chinese Government Scholarship, Shanghai Government Scholarships, SJTU Scholarships, and others.

- Applicants for a Chinese Government Scholarship should directly contact the local Chinese embassy or consulate. When completing the scholarship application form, the applicant should select Shanghai Jiao Tong University as their first choice.
- Applicants for scholarships could contact JI International Undergraduate Admission Office for more detailed information .



INTERNATIONAL ADMISSION REQUIREMENTS

APPLICATION DEADLINES
REGULAR DECISION — APRIL 15
EARLY ACTION — NOVEMBER 15

REQUIRED MATERIALS

Test Scores

Either SAT (JI code: 6563) or ACT (JI code: 6983) with writing test scores are required. For students without SAT or ACT test scores, please contact Ms. Yu Zhang at ji-intadm@sjtu.edu.cn. For non-native speakers of English, either TOEFL (iBT) (JI code: 6210) or IELTS score is also required:
TOEFL (iBT): 84 or above.
IELTS: 6 or above.

Recommendations

Two recommendation letters are required: one from the applicant's high school counselor and one from a teacher.

High School Transcripts

Special attention is given to mathematics, physics, chemistry and other related subjects. Applicants should arrange to have copies of their official transcripts in English sent to the Joint Institute from the high school(s) they attended.

Estimated Tuition and Fees

Tuition: 80,000 CNY/Year
Room and Board: 4650 USD
Books and Supplies: 300 USD. This figure represents the average cost and is subject to change.

Application Fee

All applicants are required to pay a nonrefundable application fee of 75 USD.

On-line Application

- <https://apply.commonapp.org/Login?ma=699>

ADDITIONAL REQUIREMENTS FOR TRANSFER STUDENTS

- Students applying to transfer must be in good academic standing at the institution(s) attended.
- The JI will review the courses taken at other institutions and determine the number of transferable college credits.
- TOEFL or IELTS test scores are required of all speakers with English as a second language.
- Official high school/secondary school records, including 9th-12th grades and graduation date may be required. The more credits a student is able to transfer, the less the student's high school work will be used in the evaluation.
- Official transcripts from all post-secondary institutions are required. Successful candidates usually present a cumulative GPA of B (3.0 on a 4.0 scale) or better.
- Students wishing to transfer should complete a series of prerequisite courses. All courses should be evaluated by a letter grade and not pass/fail. A letter grade of a "C" or better is required for the prerequisite courses including:
 - > College level Calculus I, II, III and Differential Equations
 - > Calculus-based Physics with labs
 - > General college Chemistry with lab
 - > Computer programming, C/C++ preferred
 - > English: English composition
 - > Certain GPA depending on a specific program

Note:

- In order to receive a Bachelor's degree, students are required to register in the university system for at least 3 years.



EXTRACURRICULAR ACTIVITIES

Ji students are very active in extracurricular activities. Within Ji, there are 11 student associations and 10 student clubs. In addition, 168 student associations and clubs are open to all students on the SJTU campus. These student associations and clubs can be classified into five main categories: politics and economics, volunteering and charity, science and engineering, culture and art, and sports and fitness.

