



International Dual Degree Program of Biomedical Engineering at Shanghai Jiao Tong University(China)-Drexel(United States)

Introduction of SJTU and Drexel

Shanghai Jiao Tong University (SJTU), as one of the higher education institutions which enjoy a long history and a world-renowned reputation in China, is a key university directly under the administration of the Ministry of Education (MOE) of the People's Republic of China and co-constructed by MOE and Shanghai Municipal Government. Through 119 years' unremitting efforts, SJTU has become a comprehensive, research-oriented, and internationalized top university in China.

Drexel is a comprehensive global research university ranked among the top 100 in the nation and committed to use-inspired research with real-world applications, and the University's research activities result in more than \$110 million in annual expenditures for sponsored projects. With approximately 26,000 students, Drexel is one of America's 15 largest private universities., and many of its colleges and programs are considered among the best in their fields.

Biomedical Engineering at SJTU and Drexel

The Biomedical Engineering (BME) Program was first established at SJTU in 1979. After more than 30 years of rapid development, the School of BME was formally established. The BME program of SJTU has been ranked consistently in the top three in China and has the following unique advantages to support its rapid development into a world-class BME discipline: SJTU is very strong not only in engineering and physical sciences that have had a history over 100 years, but also in the ranked #1 clinical medicine with 12 top ranked affiliated hospitals in China. BME at SJTU has the following divisions: Biomedical Instrumentation, Neuroengineering, Medical Imaging and Informatics, disease biology, Nano Biomaterial and Systems Biology and Medicine.

For graduate students, the School of Biomedical Engineering, Science and Health Systems, Drexel University, USA offers master's of science (MS) and PhD programs in Biomedical Engineering and Biomedical Science. Areas of specialization available or under development include biomechanics, rehabilitation, biomaterials and tissue engineering, biosensors and biomedical imaging, biostatistics, genome science and bioinformatics, human factors and performance engineering, neuroengineering, and systems biology.



SJTU-Drexel Dual Ph. D./Master's Degree Program

In 2009, SJTU and Drexel signed Memorandum of Cooperation.

In 2011, SJTU and Drexel launched a dual PhD's degree program on biomedical engineering and will start dual master's degree program from 2016.



Semesters for the Dual Master Degree Programs



| Application in February | Year 1 (Semester 1) Fall (Sept.-Jan.) | Year 1 (Semester 2) Winter (Jan.-June) | Year 2 (Quarter Terms) Fall to Summer an (Sept.-Sept.) | Year 2 (Semester 3) Fall (Sept.-Jan.) |
|-------------------------|------------------------------------------|-------------------------------------------|--------------------------------------------------------------|------------------------------------------|
| | SJTU | Drexel | Drexel | SJTU |

Or



| Application in February | Year 1 (Terms 1-4) Fall-Winter-Spring- Summer (Sept.-Sept.) | Year 2(Semester 1) Fall (Sept – Jan) | Year 2 (Semester 2) (Jan. – June) | Year 2 (Term 5) Summer(July- Sept.) |
|-------------------------|-------------------------------------------------------------------|-----------------------------------------|--------------------------------------|-------------------------------------------|
| | Drexel | SJTU | SJTU | Drexel |

Semesters for the Dual Ph.D Degree Programs

For Dual Ph.D Degree applicants, the training plans will be tailored by the expected supervisors from both SJTU and Drexel University. Please contact with the coordinator for details.

Major courses offered in SJTU-Drexel Dual Master's Degree Program of BME

| SJTU- Mandatory | Drexel-Mandatory |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> ➤ Overview of Chinese Cultures ➤ Chinese ➤ Computational Method ➤ Matrix Theory | <ul style="list-style-type: none"> ➤ Medical Science I ➤ Medical Science II ➤ Medical Science III ➤ Biosimulation I ➤ BiosimulationII ➤ Seminar |
| SJTU-Elective | Drexel-Conditionally elective |
| <ul style="list-style-type: none"> ➤ Neural Control of Movements ➤ Biomedical Signal Processing ➤ Computational Methods for Medical Imaging ➤ Neuroimaging ➤ Cell biological Photonics ➤ Frontiers in Biomedical Engineering Seminar Series ➤ Biomedical Optics ➤ Advanced Digital Image Processing ➤ Bioheat and Mass transfer ➤ Systems Biology: concepts, methodologies and applications ➤ Biomaterials and Tissue Engineering ➤ Techniques for Neuromodulation ➤ Computer Vision in Biomedical Engineering ➤ Molecular Sensors and Nanodevices: Principles, Design and Applications in Biomedical Engineering | <ul style="list-style-type: none"> ➤ Medical Imaging Systems I ➤ Medical Imaging SystemsII ➤ Tissue Engineering I ➤ Tissue Engineering II ➤ Biomedical Mechanics I ➤ Biomedical Mechanics II ➤ Biomaterials I ➤ Biomaterials II ➤ Medical Imaging Systems III ➤ Quantitative Systems Biology ➤ Pharmacogenomics ➤ Neural Signals ➤ Biomaterials and Tissue Eng. III ➤ Cardiovascular Engineering ➤ Genome Information Engineering ➤ Principles of Neuroengineering |

Scholarships

Chinese Government Scholarship for International Students (www.sie.sjtu.edu.cn)

Chinese Government Special Scholarship for International Students (www.csc.edu.cn)

Shanghai Government Scholarship for International Students (http://www.study-shanghai.org/Scholarship_en.asp)

Deadline for Application

Applicants with scholarship of any kind: **March 31, 2018**

Non-scholarship applicants: **May 31, 2018**

Tuition and Fees

Fees will be waived by both side for most of the programs.
Please contact with Coordinator for details.

For more information, please contact:

Ms. Hanqun WANG, Coordinator from SJTU

Tel: +86-21-62932706

Email: hanqun.w@sjtu.edu.cn

Prof. Andres Kriete, Coordinator from Drexel

Email: ak3652@drexel.edu

Official Websites

SJTU Official : <http://en.sjtu.edu.cn/>

BME Official : <http://bme.sjtu.edu.cn/En>