I. Program Introduction

1. General Introduction

(1) Introduction

MOFCOM Scholarship is set up by Ministry of Commerce of People's Republic of China to further strengthen the communication and cooperation between China and other countries as well as to develop talents for developing countries. Starting from 2015, MOFCOM Scholarship mainly sponsors the young and the middle-aged talents from recipient countries to pursue their postgraduate degree education in China and entrusts China Scholarship Council to administer the Scholarship.

Tianjin University has been designated as one of 26 universities to accept scholarship students in the following 10 programs:

Architecture (Master/PhD) Urban Planning (Master/PhD) Civil Engineering, Hydraulic Engineering, Naval Architecture and Ocean Engineering (Master/PhD) Environmental Engineering (Master/PhD) Chemical Engineering (Master/PhD) Pharmaceutical Science (Master/PhD) Software Engineering (Master/PhD) Mechanical Engineering (Master/PhD) Biomedical Engineering (Master) MBA (Master)

(2) Supporting Categories, Duration of Scholarship and Instruction

Language

MOFCOM Scholarship supports Master's program for 2-3 years or PhD program for 3-4 years. Scholarship winners must register for English-taught program if such program is available. When only Chinese-taught program is available, students should take Chinese language training courses for one to two years before moving on to their degree study.

(3) Scholarship Coverage

-tuition waiver
-on-campus accommodation
-living stipend:
3000RMB per month per master student
3500RMB per month per PhD student
-medical insurance
-one-off settlement allowance
-one-time round-trip international air tickets.

2. Introduction of Tianjin University

(1) Brief Introduction of Tianjin University

Tianjin University, previously known as Peiyang University, was the first modern university in China. The University is located in Tianjin, a beautiful northern city in China which is only 30 minutes away from Beijing by intercity train. There are two campuses—Weijin Campus and Peiyang Campus, which cover a total area of 3.83 million square meters.

Since it was established in 1895, it has been an academic leader in research and teaching, living up to the university motto of "Seeking Truth from Facts". Over 123 years, the University has established a reputation as one of the leading research and teaching centers in China. Academic dispositions define the spirit of TJU. Outstanding educators and renowned scholars have always been the most valuable asset to the university.

The University gives precedence to the study of engineering and focuses on integrating science with engineering. It has developed a balanced offering of disciplines including economics, management, literary arts, law, and education. Now the University has 55 bachelor programs, 39 master degree programs (first level discipline) and 28 doctoral degree programs (first level discipline). Besides, it offers a range of professional degrees, like MBA, EMBA, MPA, Engineering Master Program, etc.

The University welcomed its first batch of international students in the 1920s. Home to more than 20,000 international students from 150 countries and regions until now, TJU has become one of the best universities to study in China.

| Major | College | Website |
|------------------------------|-----------------------------|--|
| Architecture (Master/PhD) | | |
| Urban Planning | School of Architecture | http://arch.tju.edu.cn//english/ |
| (Master/PhD) | | |
| Civil Engineering, Hydraulic | | |
| Engineering, Naval | School of Civil Engineering | http://ignu.tiv.edu.or/cir.dou.com |
| Architecture and Ocean | School of Civil Engineering | http://jgxy.tju.edu.cn/eindex.asp |
| Engineering (Master/PhD) | | |
| Environmental Engineering | School of Environmental | http://www.tiv.adv.ap/apaliah/ |
| (Master/PhD) | Science and Engineering | http://www.tju.edu.cn/see/english/ |
| Chemical Engineering | School of Chemical | http://shamanativ.adv.an/an/ |
| (Master/PhD) | Engineering | http://chemeng.tju.edu.cn/en/ |
| Pharmaceutical Science | School of Pharmaceutical | http://hoolth tiv.odv.or/ |
| (Master/PhD) | Science and Technology | http://health.tju.edu.cn/ |
| Software Engineering | School of Computer | http://scs.tju.edu.cn/plus/list.php?tid= |
| (Master/PhD) | Software | 3 |

(2) Participating Schools

| Mechanical Engineering | School of Mechanical | http://tdivyy.tiu.adu.an/indayan.htm | |
|------------------------|---------------------------|---------------------------------------|--|
| (Master/PhD) | Engineering | http://tdjxxy.tju.edu.cn/indexen.html | |
| | School of Precision | | |
| Biomedical Engineering | Instrument and | http://ivwy.tiv.adv.on/on/ | |
| (Master) | Opto-electronics | http://jyxy.tju.edu.cn/en/ | |
| | Engineering | | |
| MDA (Master) | College of Management and | http://gome.tiv.edv.on/English/ | |
| MBA (Master) | Economics | http://come.tju.edu.cn/English/ | |

(3) Life in Tianjin University

Tianjin University is located in Tianjin, a beautiful northern city in China which is only 30 minutes away from Beijing by intercity train. Tianjin City, one of China's four municipalities directly under the Central Government, is the largest opening coastal city in North China, and one of the National Famous Historical and Cultural Cities in China with a relatively low living cost (around RMB 750-1000/month for food, RMB 150-200/month for public transportation, and RMB 50-100/month for phone).

Tianjin is located in northeast part of the North China Plain and the center of Bohai-Rim, bordering the Bohai Sea in the east, leaning against the Yanshan Mountain in the north. The students can feel distinct seasons in Tianjin. In spring it is dry, windy, with fluctuating temperatures. In summer, the subtropical high in the Northwest Pacific often brings southerly wind, as well as high temperatures and humidity. In autumn, the sky is bright and sunny. In winter, Tianjin receives northwesterly wind, which brings cold and dry weather. The students need to wear warm coats in the winter.

Tianjin University provides single-room dormitories (telephone, TV_s air conditioner, and private bathrooms are included) with public kitchens for MOFCOM Scholarship students, on the beautiful Weijin Campus or Peiyang Campus. There are also a variety of sports venues and facilities such as gyms, swimming pools, football fields, clinics, libraries, bookstores etc, to enrich the students' lives.

3. Teaching Plan

Masters in Architecture

Home to many well-known architects like Li Xinggang, the chief architect of China's part of the National Stadium (Bird's Nest) and Zhao Xiaojun, the Chinese General Designer of the National Aquatics Center (Water Cube), the Architecture related programs at TJU have a high reputation of many years' standing for good quality.

The three professional master's programs in Architecture, Landscape Architecture and Urban Planning are designed for qualified graduates wishing to practice architecture, LA or UP at a professional level. Students will learn from TJU Architecture internationally recognized academics and renowned adjunct and visiting architects and professors, and will engage in course projects that connect with local and international communities.

Students will also have the opportunity to hold an internship at world renowned architectural design firms with supervision from leading architects. The cooperative design firms include Tianjin Urban Planning & Design Institute, Tianjin University Research Institute of Architectural Design & Urban Planning, Chinese Architectural Design and Research Group, Archiland International, Beijing Institute of Architectural Design and so on.

The master program in Architecture was recognized through in all countries that signed the Carberra Accord, which makes the graduates qualified to apply professional certificates in those countries.

| 1. General Degree Courses: Chinese (2 credits), General China (2 credits). |
|--|
| 2. Major-related Degree Courses (>=8 credits), 1-2 theory courses (2 credits). |

| Programs | Course Name | Credit | Credit Hour |
|-----------------------------------|---|--------|-------------|
| | Architecture Design (1) | 4 | 120 |
| Master in Architecture | Architecture Design (2) | 4 | 120 |
| Design | Integrated building and urban design in a resource conservation perspective | 1 | 16 |
| | Design in Motion | 1 | 16 |
| Master in | Landscape Architecture Design (1) | 4 | 120 |
| Landscape Architecture | Landscape Architecture Design (2) | 4 | 120 |
| Design | Landscape Ecology and Design/Planning Application | 2 | 32 |
| | Urban design(1) | 4 | 120 |
| Master in Urban Plan Design | Urban design(2) | 4 | 120 |
| | Ecological Environment and Urban Development | 1 | 16 |
| | International Comparative Planning | 1 | 16 |

3. Major-related Optional Courses (>=8 credits)

| Course Name | Credit | Credit Hour |
|---|--------|-------------|
| Engineering Practice and Experimental Skills | 4 | 120 |
| Research Method | 1 | 14 |
| Contemporary Architectural Theory And Review | 1 | 16 |
| Architecture and the Aesthetics of Compression | 2 | 32 |
| Sustainable Regeneration Theory and Practice of His | 1 | 16 |
| Environment | | |
| Case Studies of the World Cultural Heritage | | 16 |
| Design Thinking and Cognition | | 16 |
| Close readings of architectural writings & projects | | 24 |
| Nationalism and Mdn Cities and Arch in Asia | | 16 |
| How to Make An Open Building | | 16 |
| Keeping Memory Green: Sustainable Regeneration Theory and F | | 16 |
| of Historical Environment | | |
| Managing Global City Regions | 1 | 16 |

4. Seminar/Academic Exchange/ Project report (2 credits)

5. Graduation thesis (6 credits)

Masters in Urban Planning

Home to many well-known architects like Li Xinggang, the chief architect of China's part of the National Stadium (Bird's Nest) and Zhao Xiaojun, the Chinese General Designer of the National Aquatics Center (Water Cube), the Architecture related programs at TJU have a high reputation of many years' standing for good quality.

The three professional master's programs in Architecture, Landscape Architecture and Urban Planning are designed for qualified graduates wishing to practice architecture, LA or UP at a professional level. Students will learn from TJU Architecture internationally recognized academics and renowned adjunct and visiting architects and professors, and will engage in course projects that connect with local and international communities.

Students will also have the opportunity to hold an internship at world renowned architectural design firms with supervision from leading architects. The cooperative design firms include Tianjin Urban Planning & Design Institute, Tianjin University Research Institute of Architectural Design & Urban Planning, Chinese Architectural Design and Research Group, Archiland International, Beijing Institute of Architectural Design and so on.

The master program in Architecture was recognized through in all countries that signed the Carberra Accord, which makes the graduates qualified to apply professional certificates in those countries.

| Programs | Course Name | Credit | Credit Hour |
|------------------------|---|--------|-------------|
| | Architecture Design (1) | 4 | 120 |
| Master in | Architecture Design (2) | 4 | 120 |
| Architecture Design | Integrated building and urban design in a resource conservation perspective | 1 | 16 |
| | Design in Motion | 1 | 16 |
| Master in | Landscape Architecture Design (1) | 4 | 120 |
| Landscape | Landscape Architecture Design (2) | 4 | 120 |
| Architecture Design | Landscape Ecology and Design/Planning Applicati | 2 | 32 |
| Master in | Urban design(1) | 4 | 120 |
| Urban Plan | Urban design(2) | 4 | 120 |
| Design | Ecological Environment and Urban Development | 1 | 16 |
| | International Comparative Planning | 1 | 16 |

General Degree Courses: Chinese (2 credits), General China (2 credits). Major-related Degree Courses (>=8 credits), 1-2 theory courses (2 credits).

3. Major-related Optional Courses (>=8 credits)

| Course Name | Credit | Credit |
|--|--------|--------|
| | | Hour |
| Engineering Practice and Experimental Skills | 4 | 120 |
| Research Method | 1 | 16 |
| Contemporary Architectural Theory And Review | 1 | 16 |
| Architecture and the Aesthetics of Compression | 2 | 32 |
| Sustainable Regeneration Theory and Practice of Historical | 1 | 16 |

| Environment | | |
|---|-----|----|
| Case Studies of the World Cultural Heritage | 1 | 16 |
| Design Thinking and Cognition | 1 | 16 |
| Close readings of architectural writings & projects | 1.5 | 24 |
| Nationalism and Mdn Cities and Arch in Asia | 1 | 16 |
| How to Make An Open Building | 1 | 16 |
| Keeping Memory Green: Sustainable Regeneration Theory and Pr of Historical Environment | 1 | 16 |
| Managing Global City Regions | 1 | 16 |

4. Seminar/Academic Exchange/ Project report (2 credits)

5. Graduation thesis (6 credits)

Master in Civil Engineering, Hydraulic Engineering, Naval Architecture and Ocean Engineering

This program aims to cultivate future graduate students and help them grasp the fundamental theory of mathematics and mechanics, get an in-depth and systematic understanding of the knowledge and meet the research frontiers in the three majors - civil engineering, hydraulic engineering, naval architecture and ocean engineering.

Graduate students from this program are expected to have capabilities in the following three important aspects: (1) the ability to integrate and apply basic, professional knowledge in their fields to solve engineering problems in related fields; (2) the ability to skillfully participate in technology developing and managing of large-scale engineering projects; (3) the ability to independently and creatively conduct scientific research in their fields.

1. General Degree Courses

| Course Name | Credit | Credit Hour |
|--|--------|-------------|
| Chinese | 2 | 32 |
| China Studies | 2 | 32 |
| Advanced Structural Dynamics | 2 | 32 |
| Advanced Fluid Mechanics | 2 | 32 |
| Advanced Geotechnical Mechanics | 2 | 32 |
| Elasticity and Plasticity in Engineering | 2 | 32 |

2. Major-related Degree Courses

| Course Name | Credit | Credit Hour |
|---|--------|-------------|
| Theory and Technique of Engineering Structure Experiments | 2 | 32 |
| Finite Element Analysis | 2 | 32 |

3. Major-related Optional Courses

| Programs | Course Name | Credit | Credit Hour |
|--------------|---|--------|-------------|
| | Structure Wind Engineering | 2 | 32 |
| | Advanced Steel Structures | 2 | 32 |
| | Advanced Reinforced Concrete Structures | 2 | 32 |
| | Stability of Steel Structures-The theory and impler | 2 | 32 |
| Civil | Large-span Structural Systems | 2 | 32 |
| Engineering | Advanced Bridge Structures | 2 | 32 |
| | Theory and Application of Aseismic Engineering | 2 | 32 |
| | Design of High-rise Buildings | 2 | 32 |
| | Advanced Constructions Materials | 2 | 32 |
| | Modern theory of tunnel and underground enginee | 2 | 32 |
| | Computational Fluid Dynamics | 2 | 32 |
| | Water Resources Management | 2 | 32 |
| ** 1 1 | Green Infrastructure for Water Management | 2 | 32 |
| Hydraulic | Water Ecological Engineering | 2 | 32 |
| | Urban Hydrology | 2 | 32 |
| | Satellite Remote Sensing and Geographic Informat System | 2 | 32 |
| Engineering | Rock Mechanics | 2 | 32 |
| Engineering | Distributed Hydrological Modelling I | 2 | 32 |
| | Mechanics of Sediment Transport | 2 | 32 |
| | Global Construction Practices and Innovations | 2 | 32 |
| Naval | Offshore Geomechanics | 2 | 32 |
| Architecture | Offshore dynamics | 2 | 32 |

| and Ocean | Course introduction_ Subsea Riser Design Technol | 2 | 32 |
|-------------|---|---|----|
| Engineering | Calculation of structural response under dynamic l | 2 | 32 |
| | Advanced Mobile Offshore Platforms | 2 | 32 |
| | Dynamics of Offshore Structures | 2 | 32 |
| | Design principles for offshore floating structures | 2 | 32 |
| | The nonlinear vibration in the Ship and Ocean Engineering | 2 | 32 |
| | Marine Renewable Energy | 2 | 32 |

4. Seminar/Academic Exchange, 2 credits

5. Graduation thesis / Project report, 6 credits

Students are required to obtain at least 34 credits, with 12 credits of general degree courses, 4 credits of major-related degree courses, 10 credits of major-related optional courses, 2 credits of academic activities, and 6 credits of graduation thesis or project report.

Master in Environmental Engineering

1. Introduction

This program seeks to produce environmental scientist and engineers with a strong fundamental technical education, who master theoretical course of environmental science & engineering and experimental skills. The program is for students who seek a broad education in application of environmental science & engineering to a variety of specific areas, including environment and energy, environmental chemistry, water and wastewater engineering, air pollution control engineering, solid waste treatment, environmental catalysis, environmental monitoring, as well as environmental biology. Environmental science & engineering students acquire the necessary background and skills to design/optimize environmental waste treatment processes, and know how to carry out the fundamental and applied investigation on the problems found in environmental industry.

Environmental science & engineering includes water and wastewater treatment technology, optimization of water supply and drainage systems, solid waste and waste gas pollution purification, biological energy development and utilization, ecological restoration, environmental management and planning, and low-carbon technologies. In recent years, School of Environmental Science and Engineering has undertaken a number of national research projects, and won over 10 provincial science and technology progress prize. At the same time, School of Environmental Science and Engineering has cultivated a large number of environment engineers and high-level scientific researchers.

The main directions in the engineering field include:

- 1. Water pollution control and water resources comprehensive utilization technology
- 2. Air pollution control and waste gas purification technology
- 3. Solid waste disposal and energy utilization technology
- 4. Ecological restoration technology
- 5. Environmental planning and management
- 6. Environmental monitoring and environmental impact assessment

2. Objective

This program aims to develop independent innovation activities, skills of international academic communication, and spirit of collective cooperation, so that the students will become highly qualified professionals in the field of environmental science & engineering

3. Features

This program emphasizes on central courses in parallel with frontier studies. The compulsory courses focus on learning basic courses so that students have a solid, theoretical foundation in environmental science & engineering. The elective courses will be introduced by a number of PhD advisors with overseas experiences, focusing on how to deal with environmental science & engineering problems emerging from many fields including energy and environment in order to improve students' research capabilities.

The program focuses on both knowledge teaching and interest training through combining course learning with lab training. There are a number of research teams in

School of Environmental Science & Engineering. The main courses are given by various professors with a wealth of research experience and fruitful research achievement, who can provide more real cases in the class for improving the learning efficiency of students. In addition, there are many research fields in Environmental Science & Engineering of Tianjin University, which can provide more opportunities for students to integrate multidisciplinary knowledge and might yield some cross-frontier investigations.

4. Duration

Learning period is 2.5 years.

5. Courses and Credits

Students are required to obtain at least 27 credits, with at least 14 credits of core courses, at least 3 credits of compulsory courses, and at least 10 credits of optional courses.

| Course Type | Course Name | Credit | Credit Hour |
|-------------|--|--------|-------------|
| | Chinese | 2 | 32 |
| | Chinese Culture I | 2 | 40 |
| | Applied Statistics | 2 | 32 |
| Core | Environmental Planning and Management | 2 | 32 |
| Courses | Environmental Molecular Biology | 2 | 32 |
| | Indoor Air Environment and Health | 2 | 32 |
| | Academic Scientific Writing | 1 | 16 |
| | Introduction to Environmental Science & Engineer | 1 | 16 |
| | Lectures of Academic Frontier and Academic | 1 | 16 |
| Compulsory | Ethics (4 times) | | |
| Courses | Academy Activity | 1 | 16 |
| | Environmental Laboratory Safety and Basic Skills | 1 | 16 |
| | Chinese Culture II | 1 | 20 |
| | Environmental Microbiology | 2 | 32 |
| | Environmental Energy Technology | 2 | 32 |
| | Environmental Catalysis and Characterization of | 2 | 32 |
| Optional | functional materials | | |
| Courses | Water and Wastewater Engineering | 2 | 32 |
| | Wastewater Biology Treatment Technology | 2 | 32 |
| | Surface Water and Ground Water Restoration | 2 | 32 |
| | Air Pollution Control Engineering | 2 | 32 |
| | Solid Waste Treatment and Reuse | 2 | 32 |

6. Dissertation

Students are required to finish a master degree dissertation, as well as thesis publication.

Master in Chemical Engineering

This program seeks to produce chemical engineers with a strong fundamental technical education, who master the theoretical course of chemical engineering and the experimental skills. The program is for students who seek a broad education in the application of chemical engineering to a variety of specific areas, including energy and the environment, materials and nanotechnology, polymers, surface science, catalysis and reaction engineering, systems and process design, and biotechnology. Chemical engineering students acquire the necessary background and skills to design chemical processes, and know how to carry out the fundamental and applied investigation on the problems found in the chemical industry.

This program aims to develop the independent innovation activities, the skills of international academic communication, and the spirit of collective cooperation, so that the students will become highly qualified professionals in the field of chemical engineering.

2

32

1. General Degree Courses: Chinese (2 credits), General Chinese (2 credits)

2. Major-related Degree Courses (>=10 credits) Course Name Credit Credit Hour **Chemical Reaction Engineering** 2 32 2 **Chemical Separation Processes** 32 2 32 **Chemical Engineering Thermodynamics** Mass Transfer Processes 2 32

3. Major-related Optional Courses (>=8 credits)

Chemical Process Systems Engineering

| Course Name | Credit | Credit Hour |
|---|--------|-------------|
| Catalytic Kinetics and Reactor Design | 2 | 32 |
| Transport Phenomena | 2 | 32 |
| Environmental Biotechnology | 2 | 32 |
| Special Chemicals | 2 | 32 |
| Modern Experimental Technology for Chemical Engineering | 2 | 32 |
| Frontiers in Chemical Engineering | 4 | 64 |

4. Seminar/Academic Exchange, 2 credits

5. Graduation thesis / Project report, 6 credits

Master in Pharmaceutical Science

This program is customized for international students who are interested to study pharmacy related subjects in China. The program focused on the pharmaceutical technology particularly in basic theoretical and practical knowledge of pharmaceutics, making a good career foundation for the professional pharmacist.

A batch of well-known international scholars headed by the Dean of School of Pharmaceutical Science and Technology, Prof. Jay Siegel, make this program really international, although it's located in China.

1. General Degree Courses: Chinese (2 credits), General Chinese (2 credits)

2. Major-related Degree Courses (>=10 credits)

| Course Name | | Credit Hour |
|-------------------------------------|---|-------------|
| Pharmaceutics1: Solid dosage forms | 2 | 32 |
| Pharmaceutical Calculations | 1 | 16 |
| Pharmaceutics2: Liquid dosage forms | 2 | 32 |
| Statistics | 1 | 16 |
| Pharmaceutical Analysis | 2 | 32 |
| Traditional Chinese Medicine (TCM) | 4 | 64 |

3. Major-related Optional Courses (>=8 credits)

Provide students with abundant pharmacy-related optional courses including pharmaceutical chemistry, pharmaceutical analysis, pharmaceutical formulation, pharmacognostics, microbial and biochemical pharmacy, pharmacology, etc (the above courses may vary annually).

4. Seminar/Academic Exchange, 2 credits

5. Project report, etc, 6 credits

Master in Software Engineering

This program is designed to cultivate internationalized and advanced software engineers with a profound understanding of advanced and practical software development methods techniques, and tools related to each phrase of software development cycles and to equip students with comprehensive knowledge related to information technology and expertise in certain specialty.

| Course Type | Course Name | Credit | Credit Hour |
|-------------|---|--------|-------------|
| | Chinese Culture | 3 | 60 |
| | Comprehensive Chinese 1 | 2 | 40 |
| Public | Foundation of Engineering Mathematics | 4 | 80 |
| | Project Management | 2 | 32 |
| Courses | Java 8 Programming with the FX libraries | 2 | 32 |
| | Computer Architecture | 2 | 32 |
| | Advanced Data Mining, Data Fusion and its Appli | 2 | 32 |
| Practical | Practical Project Training | 6 | |
| Training | Project Report | 2 | |
| | Data and Information Visualization | 2 | 32 |
| Specialized | Algorithmics and Informatics | 2 | 32 |
| 1 | Web-based Knowledge Representation | 2 | 32 |
| Courses | Distributed System and Cloud Computing | 2 | 32 |
| | Comprehensive Chinese 2 (optional) | 2 | 40 |

Master in Mechanical Engineering

Mechanical Engineering includes thermal and power, mechanical design and other engineering subjects. Based on nature science, technology and practical experience, Mechanical Engineering solves the theoretical and practical problems involved in the research, development, design, manufacturing, installation and maintenance for all different kinds of mechanical devices.

The Master Program in Mechanical Engineering is offered based on the three major first-level disciplines (Power Engineering and Engineering Thermal Physics, Mechanical Engineering, and Mechanics) in the School of Mechanical Engineering of Tianjin University. It includes three options:

<u>Energy and Power Option:</u> To develop scientific and humanistic quality and professional competence, and to prepare students to master the professional knowledge in thermal engineering, power engineering, power machinery, environmental engineering and other related areas, to know internal combustion engine, fuel cell, solar energy, wind energy, hydrogen energy and other energy technologies, and to have strategic vision in sustainable energy development.

<u>Mechanical Design Option:</u> To develop scientific and humanistic quality and professional competence, and to prepare students to master the professional knowledge in mechanical design, manufacturing, automation, mechatronics engineering and other related areas, and to know the technologies and management skills in design and manufacturing of machinery and equipment, detection and control, use and maintenance and other related areas.

<u>Mechanics Option:</u> To develop scientific and humanistic quality and professional competence, and to prepare students to master the professional knowledge in mechanics, mathematics, experiment and other related areas, to be able to solve theoretical and practical problems involving mechanics independently, and to have the fundamental knowledge required in research, development and management.

The School of Mechanical Engineering in Tianjin University has a complete English course system for master students. All the instructors have overseas experiences and great skills in English communications. Each course has 2-4 instructors to ensure that all the courses are available for students all the time. This English course system will ensure the success of the Master Program in Mechanical Engineering.

The students will be able to choose one of the three options in Energy and Power, Mechanical Design, and Mechanics. The three options are strongly related. By completing the required courses in the selected option, the students are allowed to take the other courses in another two options. This will be beneficial for students to broaden their horizons and knowledge.

1. General Degree Courses

| Course Name | Credit | Credit Hour |
|---------------|--------|-------------|
| Chinese | 2 | 32 |
| China Studies | 2 | 32 |

2. Major-related Degree Courses

| Direction | Course Name | Credit | Credit Hour |
|------------|--|--------|-------------|
| | Advanced Combustion | 2 | 32 |
| | Advanced Thermodynamics | 2 | 32 |
| Energy and | Advanced Heat Transfer | 2 | 32 |
| Power | Renewable Energy Technology | 2 | 32 |
| | Advanced Theories and Technologies of Internal Combustion Engines | 2 | 32 |
| | Advanced Dynamics | 2 | 32 |
| Mechanical | Advanced Manufacturing Technology | 2 | 32 |
| Design | Mechanical Properties of Structures | 2 | 32 |
| Design | Human-Machine Interaction | 2 | 32 |
| | Mechatronic Systems | 2 | 32 |
| | Advanced Experimental Mechanics | 2 | 32 |
| | Advanced Solid Mechanics | 2 | 32 |
| Mechanics | Linear Vibration | 2 | 32 |
| | Numerical Methods in Fluid Dynamics | 2 | 32 |
| | Continuum Mechanics | 2 | 32 |

3. Major-related Optional Courses

8 credits are required, and 4 credits from other directions are allowed.

| Direction | Course Name | Credit | Credit Hour |
|----------------------|--|--------|-------------|
| | Advanced Fluid Mechanics | 2 | 32 |
| | Numerical Heat Transfe r | 2 | 32 |
| Energy and | Fuel Cell Technology | 2 | 32 |
| Power | Optical Instrumentation and Diagnostics of Combustion Processes | 2 | 32 |
| | Fuel and Combustion Chemistry | 2 | 32 |
| | Turbulent Combustion | 2 | 32 |
| | Robotics | 2 | 32 |
| Machanical | Nano-Technology and Precision Engineering | 2 | 32 |
| Mechanical Design | Design Management | 2 | 32 |
| Design | Mechanical Vibration | 2 | 32 |
| | Product Design and Development | 2 | 32 |
| | Dynamics of Surface Water Waves | 2 | 32 |
| | Computational Engineering Fluid | 2 | 32 |
| Mechanics | Random Vibration and Control | 2 | 32 |
| wiechanics | Ordinary Differential Equations and Stability of Motion | 2 | 32 |
| | Turbulence Theory | 2 | 32 |

4. Seminar/Academic Exchange, 2 credits

5. Graduation thesis / Project report, 6 credits

Students are required to obtain at least 30 credits, with 4 credits of general degree courses, 10 credits of major-related degree courses, 8 credits of major-related optional courses (4 credits from other directions are allowed), 2 credits of academic activities,

and 6 credits of graduation thesis or project report.

Master in Biomedical Engineering

1. Discipline Introduction and Research Directions

This discipline was established in 1979, which was firstly set up in Peiyang University (Now known as Tianjin University, hereinafter referred to as TJU) and belongs to School of Precision Instrument and Optoelectronics Engineering. In 2000, TJU was authorized to confer doctoral and master degrees, the post-doctoral research station was established and the discipline became Tianjin key discipline and setting unit of the Changjiang scholar Professor conferred by Ministry of Education. The discipline has 9 professors (8 of whom are doctoral tutors), 16 associate professors, 23 master tutors; those who has formed academic teams led by experts, and most of them are famous scholars and young teachers at the of the academic field. The main research directions: biomedical top electronics, biomedical signal processing, biomedical cloud computing and data

mining, biomedical photonics, neural engineering and rehabilitation engineer ing, medical physics, medical imaging and image processing, scientific instruments, etc.

2. Training Objective

The discipline trains innovative senior personals that master firm basic theory and systematic expertise with corresponding skills and methods. They are able to engaged in scientific research or independently take on a special technical work, with the ability to combine science, engineering and medicine.

3. Training Methods and Study Life

The full-time academic postgraduate training is in general two and a half years, in which the time of course study shall not exceed one year. Excellent students can graduate six months earlier. Students can apply for an appropriate extension of the study life, the time of which shall not exceed one year, if they cannot complete their studies on time due to objective reasons.

4. Curriculum and Credit Requirements

Total credits of graduate courses during school should not be less than 27 credits. Among them, the core courses less than 14 credits, compulsory part of at least 3 credits and at least 10 elective credits.

| Course Category | Course Number | Course Title | Hours | Credits | Remark |
|--------------------|------------------|--|------------|---------|-----------------------|
| | S131G002 | Theory and Practice of Socialism with Chinese Characteristics | 36 | 2 | |
| | S2110001 | English for Academic Communication | 40 | 2 | Choose |
| | S2110002 | Translation | 40 | 2 | one of |
| | S2110003 | Advanced Listening and Speaking | 40 | 2 | three |
| | S131GA01 | Application of Functional Analysis | 32 | 2 | |
| | S131GA02 | Matrix Theory | 32 | 2 | |
| Irse | S131GA03 | Engineering and Scientific Computing | 32 | 2 | At least 4 credits |
| Core Course | S131GA05 | Mathematical Equations | 32 | 2 | 4 credito |
| Core | S131GA06 | Applied Statistics | 32 | 2 | |
| | S131GA07 | Optimization Method | 32 | 2 | |
| | S202R007 | Advanced Biomedical Photonics | 32 | 2 | |
| | S202R009 | Biomedical Electronics | 32 | 2 | At least |
| | S202R010 | Medical Physics | 32 | 2 | 4credits |
| | S202R008 | Neural Engineering | 32 | 2 | |
| | S2020012 | Research Methodology of Biomedical Engineering | 16 | 1 | - |
| | B2140001 | English Scientific Writing | 16 | 1 | |
| | S2020010 | Frontier and Academic Ethics Seminars | 3tim es | 1 | |

| Compulsory Part | S2020009 | Academic Exchange (academic report 3 times, conference one time to encourage interdisciplinary academic exchange) | 4times | 1 | |
|-----------------|----------|--|--------|---|------------------------------------|
| Com | S202R005 | Bioinformatics Detection Experiments | 16 | 1 | |
| | S131G003 | Introduction to Dialectics of Nature | 18 | 1 | |
| | S202G011 | The Scientific Basis of Medical Imaging | 32 | 2 | |
| | S202G012 | Dynamic Modeling and Data Processing | 32 | 2 | 1 |
| | S202E035 | Body Data Detecting | 32 | 2 | 1 |
| | S202E040 | Mathematical Transformation and its Application in Image Processing | 32 | 2 | |
| | S202E041 | Simulation and Modeling of Physiological Systems | 32 | 2 | |
| rse | S202E042 | Medical Information Management Technology | 32 | 2 | |
| Elective Course | S202E051 | Modern Signal Processing | 32 | 2 | |
| dive | S202E045 | Radiobiology | 32 | 2 | Required At le ast 4 credits |
| Elec | S202E052 | Signal estimation and detection theory | 32 | 2 | Req At 4 cr |
| | S202E050 | Biomedical Materials | 32 | 2 | |
| | S202E047 | Scientific Instruments | 32 | 2 | |
| | S202E053 | Medical Instruments Embedded System Design | 32 | 2 | |
| | S202E049 | Biomechanics | 32 | 2 | |
| | S202E046 | Rehabilitation Engineering | 32 | 2 | |

| S202E048 | Artificial Intelligence and Pattern Recognition | 32 | 2 |
|----------|--|----|---|
| S202E002 | Principles and Applications of DSP | 32 | 2 |
| S202E003 | Programmable ASIC Design and Application | 32 | 2 |

| B202E023 | Biomedical Photoelectric Detection Technology | 32 | 2 | | |
|----------|---|----|---|----------|---|
| S2025005 | Medical Cloud Computing and Data Mining | 32 | 2 | 1 | |
| S2025010 | Medical Ultrasound—fundamentals and leading edge | 32 | 2 |] | |
| S2025013 | Advanced Biochemistry | 32 | 2 | | |
| S202G014 | Advanced Physics | 48 | 3 | | Γ |
| B131E001 | Modern Physics and High-tech | 40 | 2 | 1 out | |
| B2100001 | English communication and application | 20 | 1 | of3 | |
| B131R004 | Wavelet Analysis and Applications | 60 | 3 | | |
| S209RC01 | Modern Management | 32 | 2 | 1 | |
| S207RP01 | Life Science and Biotechnology | 32 | 2 | 1 | |
| S211E039 | Intellectual Property Law | 32 | 2 | 1 | |

5. Degree Paper

1) The opening report

Dissertation Proposals should be under the guidance of instructors, and the opening report submitted to the system at the beginning of the third semester.

2) Mid-term examination

Thesis mid-term examination is usually carried out in the third semester, the hospital organized group of graduate students to examine the overall capacity of the paper work in progress and work attitude, energy inputs and other full range of test, were allowed to proceed through the paper work. Thesis intermediate inspection report with academic co-ordination arrangements.

3) Thesis writing and defense requirements

Dissertation writing and defense requirements should be conducted in accordance with the relevant provisions of "Master of Tianjin University, a doctorate in implementation details".

MBA

1. Introduction and Research Direction

In 2009, College of Management and Economics (CoME) was set up as a broad and new platform for management and economics disciplines. CoME now contains three PhD programs: Management Science and Engineering, Business Administration and Public Administration, and a master program in Applied Economics, an engineering PhD program, as Systems Engineering. CoME also has one first-class National Key Discipline, and one second-class National Key Discipline. Besides, it has 2 post-doctoral programs, and professional master degree programs including MBA, EMBA, MPA and MEM. Moreover, CoME offers eight bachelor degree programs.

CoME has 163 full-time teachers, among them 44 are professors, 87 are associate professors, and 32 are assistant professors. In CoME, Three faculty members were granted Distinguished Young Scientists by National Natural Science Foundation of China. One professor is on the list of "One Thousand Talent Plan (recruitment program of global experts) by Organization Department of CPC Central Committee; 1 CKSP (Cheung Kong Scholar Program) chair Professor; Two professors were honored as "Teaching Masters of Tianjin"; 14 professors were supported by the Ministry of Education's Program for New Century Excellent Talents in University (MOE's NCET program); One "Innovative Research team" is conferred by Ministry of Education; Two Outstanding Teaching Team are awarded by the Tianjin Municipal Government.

In addition, CoME has invited more than 50 part-time professors and visiting-professors, including scholars from domestic and foreign prestigious universities, senior managers of large state-owned enterprises as well as experts from government institutions. The late Mr. Herbert A. Simon used to be the Honorary Professor; and Mr. Li Rong-rong is the Honorable Dean of CoME, who was the former chairman of the State-owned Assets Supervision and Administration Commission of the State Council (SASAC) of People's Republic of China.

Over the past three decades, CoME has won more than one hundred science and technology awards. CoME's publications have exceeded 3000, including academic papers, textbooks and monographs. CoME runs Journal of Management Science and Journal of System Engineering, both are highly authoritative academic journals. According to the latest periodical assessment report by ISTIC (Institute of Scientific and Technical Information of China), the Impact Factors of the two journals top the similar journals in China.

Master of Business Administration (MBA) is a professional degree program used for training students with certain management experience and potential leadership. It is through cultivating students' management theory and practical ability, especially focus on improving students' management, executive and entrepreneurial ability. Therefore, the curriculums of MBA program mainly composed by core courses and a variety of

optional courses. Based on the general education, we take into full account of the interdisciplinary of the subjects, integrate the knowledge on managerial economics and provide multiple major courses for students to choose from. Paying attention to the combination of rational thinking ability and practical ability in order to cultivate advanced managerial talent. Tianjin University MBA program achieved five-year international accreditation of AMBA in 2013 and joined the Association to Advance Collegiate Schools of Business (AACSB) at the same year and actively prepared for AACSB certification, and passed five-year Chinese Advanced MBA Education Accreditation (CAMEA)in 2015.

2. Program Objective

The mission of Tianjin University (TJU)'s MBA program is "We develop future leaders and entrepreneurs with creative thinking and executive capacity".

The above mission is alignment with the mission of College of Management and Economics (CoME) of TJU which is stated as "We develop people who seek and apply the truth of management and economics". It also reflects Tianjin University's culture, that is TJU has proudly upheld the motto of "Seeking Truth from Facts", and its faculty prudently practices the guideline of "Precise in Learning, Strict in Teaching".

3. Training Mode and Study Duration

Full time study and learn in English. Couses study period is 1-1.5 years .Program period is 2 years.

4. Courses and Credits

Students are required to obtain at least 45 credits, with at least 31 credits of core courses, 5 credits of compulsory, and at least 9 credits of optional courses.

| Course Type | Course Name | Credit | Credit Hour |
|--------------|--|--------|-------------|
| | Chinese Culture 1 | 2 | 40 |
| | Chinese Language | 4 | 160 |
| | Accounting | 2.5 | 40 |
| | Marketing | 2.5 | 40 |
| | Operations Management | 2.5 | 40 |
| Core | Strategic Management | 2.5 | 40 |
| Courses | Business Ethics and Corporate Social Responsibility | 2 | 32 |
| Courses | Organizational Behavior | 2.5 | 40 |
| | Financial Management | 2.5 | 40 |
| | Data, Model and Decision-making | 3 | 48 |
| | Managerial Economics | 2.5 | 40 |
| | Human Resources Management | 2.5 | 40 |
| | Management Information System | 2 | 32 |
| | Chinese Culture 2 | 1 | 20 |
| | Managerial Communication | 1.5 | 24 |
| Optional Cou | Financial Institutions and Financial Market | 1.5 | 24 |
| Optional Cou | Financial Institutions and Financial Market Project Management | 1.5 | 24 |
| | Logistics and Supply Chain Management | 2 | 32 |
| | International Business | 2 | 32 |

| Compulsory | Comprehensive Practice and | Application | 4 | 64 |
|------------|----------------------------|-------------|---|----|
| | Team Building | | 1 | 16 |

5. The requirement for Language

Applicants who do not take Chinese language studies have to submit the HSK certificate. A minimum requirement of HSK4 (Score 180 or above) for Engineering/Science or HSK5 (Score 180 or above) for liberal arts is needed.

Applicants who apply the English-taught Programs have to submit the English certificate (TOFEL: no less than 550, New TOFEL: no less than 75 or IELTS: no less than 6.0).

II. Application

1. Eligibility

(1) Applicants must be a citizen of a country other than the People's Republic of China, and be in good health (applicants need to provide health certificate or physical examination result issued by the local public hospital);

(2) Requirements for applicants' degree and age:

Applicant applying for a Master degree should hold a Bachelor diploma and be under the age of 35 (born after 1983);

Applicant applying for a PhD degree should hold a Master diploma and be under the age of 40(born after 1978).

2. Application Procedures

MOFCOM Scholarship On-line Application Procedures

Ensure you have submitted all the required documents in CSC Online Application System via www.csc.edu.cn/laihua or <u>www.campuschina.org</u> with following steps:

Step 1: Visit http://www.csc.edu.cn/laihua or www.campuschina.org and click "Application Online for International Students".

Step 2: Read "Tips for online application" carefully before clicking "NEXT" to the registration page.

Step 3: After registration, log in with your user name and password. Click "Application Forms" and choose "MOFCOM Scholarship".

Step 4: Put 00010 as your Agency Number.

Step 5: Please fill all the required information truly, correctly and completely following the navigation bars on the left of the page.

Applicants are required to select a discipline before choosing their majors. Please refer to the Disciplines Index, which could be downloaded from Help, if you have any doubt about the disciplines and majors.

Step 6: After completing the application form, please click "Preview" and check your Application Form carefully before submitting it. Click "Confirmation of Submit" in the upper right corner to submit your Application Form.

Step 7: Download the completed Application Form by clicking "Download Application" and print two hard copies.

NOTE

* Please use Internet Explorer (6.0 or 7.0). Menu selection functions may not work in other browsers.

*Only Chinese and English are accepted for the online application.

Application Documents (written in Chinese or English)

Application documents (two sets of hardcopies) should be true and complete, and sent to ECCO of the Chinese Embassy. No application documents will be returned regardless of the scholarship result.

(1) Application Form for MOFCOM Scholarship;

(2) Recommendation letters (1 from applicant's work place; 1 from the associate professor of professor in the related academic field);

(3) Photocopy of highest diploma;

(4) Photocopy of academic transcripts;

(5) CV;

(6) Personal statement;

(7) A Study Plan or Research Proposal;

(8) Photocopy of passport;

(9) Photocopy of English certificate (for Non-English speaking countries);

(10) 2 photos (2 inches with white background);

(11) Photocopy of Foreigner Physical Examination Form valid in 1 month.

NOTE

* All submitted materials should be in English or Chinese. If the submitted documents are not in English or Chinese, the notarized English or Chinese translations should be provided.

* For the important documents such as graduation certificate, degree certificate, transcript, language certificate, etc., original documents also need to be submitted at the same time for verification by the Commercial Office of the Chinese Embassy and then will be returned to the applicants.

* Once you are admitted, the original documents should be brought to China and submitted to the designated university.

Admission & Registration

Scholarship winners will get the admission package from ECCO of the Chinese Embassy by the end of August, 2018, and must register at the host university before the deadline which is usually September, 2018.

3. Deadline

The Economic and Commercial Counselor's Office (ECCO) of the Chinese Embassy in your country will be open for application until June 29th, 2018.

III. Other Important Notes

1. Contact

Contact Person: Yang Xiaorui Tel: 0086-22-27403107 Fax: 0086-22-27406147 E-mail: iso@tju.edu.cn Website: http://www.tju.edu.cn/sie/en; http://www.tju.edu.cn/english/ Address: International Admissions office (Room 205), School of International Education, No.10 East Building, Tianjin University, No.92, Weijin Road, Nankai District, Tianjin, China.

2. Other Notes

(1) Application materials will not be returned regardless of the outcome of admission.

(2) Chinese government will not make further explanations whether the applicants are accepted or not.

(3) The expenses of spouses and children in China will not be covered.

(4) Requirements on visa and other matters will be stated in the admission documents.