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Academic Education Programs Sponsored by Ministry of Commerce PRC



Tongji University

2017 International Master Program in Environmental Management and Sustainable Development

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Program Description

Background

1、Brief

Academic Education Programs sponsored by the Ministry of Commerce of People's Republic of China is designed to foster high-end business officials and managerial personnel for the recipient countries, offering one-year and two-year master programs as well as three-year doctoral programs for the purpose of educating high-end and inter-disciplinary talent working in the applied fields of government, trade, foreign affairs, agriculture, technology, education, culture and health, building intellectual capacity and facilitating the economic and social development of the recipient countries. These programs provide assistance to governmental officials, research fellows, and senior managerial personnel on their master and doctor education in China, which are fully conducted in English. Admission requirements include a bachelor's degree, relevant working experiences, and decent physical conditions, essential for the high-compact curriculum needed for the degrees.

Starting from 2008, a number of 2,678 students from developing countries have attended these programs, until now, except for those who are in the middle of their studies, 1,088 of them have graduated and obtained master degrees. These graduates are now working in their specialties back in home and undertaking an increasingly significant role in the economic development cooperation between China and their home countries.

In order to strengthen scientific research and capacity building, UN Environment-Tongji Institute of Environment for Sustainable Development (IESD) was set up by the United Nations Environmental Programme (UN Environment) and Tongji University on May 9, 2002. One of the main objectives of IESD is to promote Education for Sustainable Development (ESD).

With support from UN Environment, Tongji University and Ministry of Education of China, IESD launched the International Master's Program in Environmental Management and Sustainable Development in Sep 2006. The 2017 international master Program in Environmental Management and Sustainable Development (Tongji University) will be managed by IESD.

As for the positive effects and good results brought by these programs in strengthening economic ties and friendship between China and the recipient countries, the Ministry of Commerce of People's Republic of China will continuously intensify its efforts in enlarging the enrollment scale and improving the quality of education. We believe that by attending the programs and achieving the degrees, you will embrace a successful career and brighter future.

2、 Prospective Students

Working staff in Ministry of Environment, the Ministry of Resources and other environmental related government department

3、 Program Objective

To prepare policy makers and practitioners for developing countries

4、 Enrollment Plan

Major: Environmental Management and Sustainable Development

Number: 30

Language: English

Field: Water resources, environment & disaster management

5、 Financial aid

The Chinese Ministry of Commerce will provide "Chinese Government Scholarships" to admitted students from developing countries. These scholarships cover both tuition and living expenses. In terms of living expenses, it is 36000RMB/year for the master candidate and 42000RMB/year for the doctoral candidate.

There is also a settlement allowance of 3000RMB/person. The rest financial part will be managed by university.

If a student expects to have his/her spouse, children, relatives or friends to visit him/her during the stay in China, the visitor will have to bear all the expenses by him/herself.

University introduction

1、University brief

Tongji University is one of the leading universities in China under direct administration of Ministry of Education, listed on “Project 985” and “Project 211”. With a history of over a century, Tongji has valued the balanced development of four functions, i.e. education, research, outreach, and culture inheritance and innovation.

The history of Tongji can be traced back to 1907 when German Medical School was founded by Erich Paulun, a German doctor in Shanghai. After being renamed Tongji German Medical School in the following year, it was formally established as a university in 1923. It became National Tongji University in 1927, one of the seven earliest national universities of China. Around 1949, Tongji already boasted five colleges of natural sciences, engineering, medical science, liberal arts and law, and enjoyed a fine reputation as a comprehensive university both home and abroad. Following a nationwide campaign of restructuring universities in 1952, Tongji became an engineering-intensive university with top-notch strength in civil engineering and architecture, which is second to none in terms of scale and number of disciplines. Since 1978, “two transforms” were launched, namely, the transforming to an international university by restoring links to Germany, and the transforming from a university focusing mainly on civil engineering to multi-disciplinary engineering university. In 1995, Tongji declared to be jointly built by the Ministry of Education and the Shanghai Municipal Government. By 2007 when it was celebrating its centennial, Tongji had become a comprehensive, international, research-oriented university with distinct features and global influence. In 2013, the university proposed its vision of

“a sustainability-oriented, world-class university”.

The university now covers 10 broad categories of academic disciplines, including engineering, science, medicine, management, economics, philosophy, literature, law, education and arts. The number of faculty stands at 2,786, of which 855 are professors, and 997 associate professors. The university now registers 18,581 full-time undergraduate students, 13,762 graduate students, and 4,279 PhD candidates. Another 2,197 international students are pursuing their degrees here.

The university offers 75 undergraduate majors (50 of which are enrolling students according to 17 broad disciplinary categories). It can grant master degrees in 55 broad academic disciplines, together with 15 professional Master's programs and 26 engineering Master's programs. It also grants PhD degrees in 31 broad academic disciplines with 3 professional PhD programs and 25 post-doctoral mobile research stations. Of all the disciplines, 3 are first-level national key disciplines, 7 second-level national key disciplines, 3 second-level national key disciplines (incubated), and 17 first-level Shanghai disciplines. There are 3 State Key Laboratories, 1 National Engineering Lab, 5 National Engineering (Technology) Research Centers, and 26 ministerial/provincial-level key labs and engineering (technology) research centers as well as 7 affiliated hospitals and 4 affiliated high schools. Since its founding, Tongji has turned out nearly 300,000 graduates, among which many are extraordinary political leaders, scientists, educators, social activists, business leaders, medical specialists, and engineering technology experts. Over 140 alumni are academicians of the Chinese Academy of Sciences, or the Chinese Academy of Engineering.

2、College brief

The College of Environmental Science and Engineering (CESE) at Tongji University was one of the earliest established colleges dedicated to environmental education and research in China. Its predecessor was the Department of Health Engineering

established in 1952 and later the Department of Environmental Engineering established in 1978. Currently, CESE comprises three specialty branches: Environmental Engineering, Municipal Engineering (Water Supply and Sewerage Engineering), and Environmental Science, all with undergraduate, master, doctoral, and postdoctoral programs. In order to promote the research and education in the field of global environment issues and sustainable development, the United Nations Environment Programme-Tongji Institute of Environment for Sustainable Development (IESD) was co-established by UN Environment and Tongji University in 2002. The close affiliation of IESD with CESE committed the active involvement of CESE in international environmental education and scientific research.

Nowadays, the college has 3 departments, namely, Municipal Engineering, Environmental Engineering and Environmental Science and develops itself into a complete system of undergraduate and graduate students ranging from BA, MA, PhD to postdoctoral level(including national key disciplines on environmental engineering and key subject of Shanghai Municipal Engineering). Apart from this, the college sets up the State Key Laboratory of Pollution Control and Resource Reuse, National Engineering Research Center for Urban Pollution Control, National Experimental Teaching Demonstration Center of Environmental Science and Engineering, Key Laboratory of Yangtze River Water Environment, Ministry of Education and the UN Environment - Tongji Institute of Environment for Sustainable Development (IESD).

As to the majors, the students from Water Supply and Drainage Engineering and Environmental Engineering become members of the “Excellent Engineers” training plan launched by Ministry of Education. In addition, Environmental Engineering is one member of “Excellent Postgraduates” training plan launched by Ministry of Education. Each year, the Environment Science and Engineering College enrolls about 150 undergraduates, 250 graduate students (including doctoral students) and about 30 international students. In the past 60 years, around ten thousand

of high-level professionals graduated from the college to serve the society. Through international cooperation with the United Nations Environment Programme (UN Environment), IESD is an international education model in the field of Environment and Sustainable Development for the region and the world, especially for developing countries and have been able to cultivate many professional talents in the field of environmental and sustainable development.

The Institute's research areas cover pollution control, water and wastewater engineering, environmental chemistry, environmental biology, integrated water resources management and utilization, environmental planning and management. In addition, the college undertakes some national key research programs, such as the National Plan, the National Water Pollution Control and Governance , the National 863 Program, the Natural Science Foundation. In the past 5 years, our college has achieved a big improvement in a large number of significant researches by getting 6 awards for National Science and Technology Progress, 36 awards for scientific and technological progress in the level of province and minister, obtaining nearly 200 national invention patents, and publishing 1978 papers including 599 SCIs.

Until now, the college has established broad technical cooperation and academic exchange with Germany, France, UK, USA, Canada, Australia, and Japan, as well as Hong Kong and Taiwan. The School presided a number of international conferences, e.g., The Asia-Pacific Leadership Programme on Environment and Sustainable Development, International Workshop on Water Environment, International Water Pollution Control and Water Treatment Technology, Sino-Japan Workshop on Water Treatment Technology, Cross-Strait Workshop on Environmental Protection, Sino-German Cooperation Workshop on Sludge Treatment and Disposal, Sino-Swiss Workshop on Solid Waste Management and Technology, and Sino-France Seminar on Urban Air Quality etc.

The college has always devoted special importance to social responsibilities, scientific research and application. With the

development of economy and urbanization, we are facing with many serious problems on environmental pollution. The college transforms the research achievements of water treatment and pollution control into social practice by the cooperation with the National Engineering Research Center for Urban Pollution Control, Environmental Engineering of Tongji Institute of Architectural Design (Group) Co., Ltd. Design Institute, Shanghai Tongji water purification Engineering Co., Ltd., Shanghai Tongji Kelan Environmental Protection Equipment Engineering Co., Ltd. and Environmental Impact Assessment Department of Tongji University, etc.. For instance, in the national level, the achievements of our research are successfully applied to the 2010 Shanghai World Expo, the Suzhou River water environment governance, Taihu Lake and Chaohu Lake Basin Water Pollution Control; and in the international level, the college constructs and operates several water treatment program in Russia, Africa and Asia, resulting in a significant economic, social and environmental benefits.

For more than twenty years, the college contributes much to the modernization and opening of the country by educating high-level capable intellectuals for environmental protection, and water supply and sewage, that lays the foundation of the academic stand of the college as "superior within campus", "frontier domestically", and "well-known world widely".

In recent years, the college presided and attended many national and local key research project, and have 12 projects in "863" High Technology Research Development Plan. In 2003, the college was honored three National Science Awards, and got ten more prizes by national and local departments.

The UN Environment-Tongji Institute of Environment for Sustainable Development (IESD) was jointly established by UN Environment and Tongji University on May 9, 2002 upon the signing of the Letter of Agreement between Dr. Klaus Töpfer, then UN Under- Secretary-General and UN Environment Executive Director, and Prof. Qidi Wu, then President of Tongji University, in the College of Environmental Science and Engineering. At the 2014 IESD Board Meeting, the Board

decided to elevate IESD to its next level, as a global think-tank for UN Environment in promoting sustainable development education and capacity building, research on the environmental and urban development issues.

IESD achievements over 2015 are based on the guidance and support of UN Environment, Chinese relevant Ministries, Shanghai Government, international and domestic organizations. IESD mobilizes resources from its stakeholders and is leading efforts for a sustainability-oriented university at Tongji University, with a green campus, inter-disciplinary education and integrating sustainable development into higher education and social service. From 2004 to 2017, IESD has organized nearly 50 international and domestic training programs, seminars and trainings, attracting 5,000+ participants from all over the world. IESD have recruited 110 Chinese and 244 international students from 72 countries since 2006, 1/3 from African countries (85 African from 19 countries).

In 2012, the Global Universities Partnership on Environment and Sustainability (GUPES) was launched at IESD in the lead up to the Rio+20 Summit. Professor WU Jiang, Vice President of Tongji University and Dean of IESD, was elected as the Chair of GUPES. GUPES provides a global platform for Universities to mainstream environment and sustainable development into higher education, to incorporate sustainable development concepts and best practices in higher education, and to train technical and management personnel, particularly for developing countries. It also provides Universities the opportunity to benefit for UN Environment's knowledge base on environmental and sustainability issues. Over 560 Universities are currently part of the growing GUPES network.

IESD also conducts interdisciplinary research and promotes know-how transfer to developing countries through technology cooperation. Working together with UN Environment, IESD implemented the Chongming Eco-island Evaluation Report and assisted UN Environment's assessment of Shanghai's efforts to organize an environmentally-friendly Expo 2010. IESD also launched the Chinese version of UN Environment's Green

Economy Report. Since 2012, IESD translated UN Environment's flagship publications into Chinese.

The China Meteorological Administration (CMA) and Tongji University signed an agreement to initiate overall collaboration on capacity building, disciplinary development, research, talent cultivation on climate change, technology transfer and resources sharing. Key Laboratory of Cities' Mitigation and Adaptation to Climate Change in Shanghai, China Meteorological Administration was launched by the end of 2014 with the support of CMA and Shanghai Meteorological Bureau.

3、Student living environment

Tongji University is located in Shanghai, the northeast corner of the campus covers an area of 280 hectares. Divided into four campuses: Siping Road Campus is located in Shanghai City, Siping Road, Shanghai West Campus is located in Shanghai Road, Shanghai really, the north campus is located in the city of Shanghai Gonghexin Road, east campus is located in Wu Road in Shanghai City, new Jiading campus is located in Shanghai International Automobile City of Anting. There are many sightings in the campus, such as in the column of Sanhao dock unique attractions; the school dormitory is also very unique, multi-cultural student dormitory, four warm and lively, comfortable double rooms and free single room; the school cafeteria type is rich, can satisfy you a taste of Tongji China delicacy desire. Learn to work the spring cherry blossoms in full bloom, Tongji walk, a full of youthful spirit is Shanghai's famous cherry blossom to. The leaves of the autumn season on the soft instantly feel the deep autumn in South china. In a row of pine proudly upright campus adds beauty.

Education Plan

1、Courses

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Properties	No.	Courses	Credit	Period	Time	Contents
Public Degree Course	2070100	Foreign Language(Chinese)	3	108	spring/autumn	Teaching primary Chinese
	2900006	Chinese Outlook	3	54	spring/autumn	Introducing Chinese history and traditions
Degree Course	2050136	Environmental System and Sustainable Development	2	36	spring	Introducing Integrated Environmental Assessment
	2050143	Environmental Science	2	36	autumn	Introducing basic concepts about environmental science,atmosphere,and disposal of solids.
	2050147	Environmental Management and Policy	2	36	autumn	Introducing the integrated management of environmental projects.
	2050149	Atmospheric Science and Climate Change	2	36	spring	Introducing the fundamentals of atmospheric science: weather and climate, greenhouse effect.
	2050186	Integrated Solid Waste Management	2	36	spring	Introducing various technologies about solids dispoa.
	2050188	Wastewater Treatment: Principles and Technology	2	36	autumn	Introducing the basic concepts of sewage treatmen tand the latest researches related to the above technologies.
	2050189	Water Supply: Principles and	2	36	spring	Introducing the theories and modern technologies for drinking water

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		Technology				treatment and presenting a description of drinking water characteristics, pollutants, and standard and treatment the theories of technology and processes.
	2050200	Ecosystem Management	2	36	autumn	Introducing the inherent rule of ecosystem succession, the component, structure and function and emphasizing on ecosystem services, ecosystem management principles and technical issues.

Properties	No.	Courses	Credits	Period	Time	Contents
Non-degree course	2050141	Environmental Ethics	2	36	autumn	Educateing students on the issues that bring about appreciation of the harmony of human beings and nature. The course will dwell extensively on the background, history, concept , theories and practices of environmental ethics – dealing with issues of responsibility of human beings to conserve the stability and completeness of the ecosystem.
	2050150	Environmental Informatics	2	36	spring	educating students how to apply the science of information to environmental science and environmental protection.

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	2050190	Water resource management	2	36	autumn	introducing the working field, process and organization of water resources management.
	2050191	Aquatic Environmental Chemistry	2	36	spring	introducing water chemistry that places emphasis on the chemistry of natural and polluted waters and on the applied chemistry of water and wastewater treatment.
	2050196	Environmental Systems Analysis	2	36	autumn	introducing how to analyze environmental problems from the perspective of system

Properties	No.	Courses	Credits	Period	Time	Contents
compulsory	2900002	The subject of thesis	1	-	autumn	Something about the research topic and method.
	2900011	Academic moral norms	1	-	spring/ autumn	Some morals about thesis writing.

Curriculum

1.All the courses will be taught in English. Traditional teaching, discussions, field trips and lectures by foreign experts will be combined together.

2.It is two-year study period for the Master's degree. First year you are expected to study in Tongji University. While second year you will finish your paper wherever you want.

3.According to the credit standard of Tongji University. Academic Degree Graduate are required to get at least 28 credits:

6 credits for public degree courses ,no less than 12 credits for professional degree courses ,no less than 8 credits for non-degree courses, 2 credits for compulsory courses.

4. Students are required to finish all the academic and non-academic courses within the first year(Academic Master 28 credits),complete the master degree thesis(65-70pages) independently and pass the dissertation defense. Later you can apply for Master graduation certificate of Tongji University. Only academic paper with issue number published, the student could apply for Master Degree Certificate.

Teaching staff

This college's current community of scholars includes 171 staff members, among which there are 2 members from "Thousands of Plans", 2 member of Outstanding Youth Fund, 67 professors, 50 associate professors, 66 doctoral supervisors. Meanwhile, The college also invited Academician DUAN Ning, Academician HOU Li'an, former Executive Director of UN Under-Secretary-General, the United Nations Environment Programme, Dr. Klaus Toepfer and other prestigious environmental experts as honorary professors and visiting professors, and many universities and research institutions from all over the world have a close cooperation with the college in teaching and research.

2. Teaching methods

All the courses will be taught with the form of lectures, seminars, case studies, field visits, and scientific research and so on. We also enhance the comprehension of environmental management and sustainable development by case study, experiencing such situations as well as topical seminars. Thus we can strengthen students' environmental management capacity and professional skills, enhance the sustainable development of the concept , and promote green leadership.

3. Schedule

Follow the official website of Tongji University.

4. Thesis for graduation

(1) Requirements of graduation thesis: Please refer to the website of Graduation School:

<http://gs.tongji.edu.cn/html/xwgz/xwpc/2017/01/09/503eb047-5009-403d-b8ae-a798d8895164.html>

(2) Requirements of thesis defense: Please refer to the website of Graduation School:

<http://gs.tongji.edu.cn/html/jxpy/pygc/2016/09/30/8a642295-8351-4973-ba1a-89e120722c8e.html>

5. Degree

For apply Master Degree certificate (Environmental Science), at least 1 published academic article (English) in the relevant professional academic journals, which the student is the first author or mentor for the first author, student for the second author. Complete the credits and requirements within the specified time will be awarded Tongji University master degree certificate.

Application

Application Requirement

- Applicants must be non-Chinese nationals and in good health.
- Bachelor's degree.
- Fluent in oral and written English.
- Senior officers working in the government sectors of environment-related fields in the developing countries, such as Ministry of Environment, Ministry of Natural Resources etc. are encouraged to apply.

Application Procedures

1. How to apply

(1) Procedure

Fill in the application form online first at: <http://study-info.tongji.edu.cn/>, print out the form and sign. Submit

and post all the application documents in hard copies to UN Environment-Tongji Institute of Environment for Sustainable Development office. (Room 903 Zonghe Building, Tongji University, No.1239 Siping Road, Shanghai, China) ; Meanwhile, scan the hard copies to the following email address: unep_tongji@tongji.edu.cn

(2) Notice

- A、 The online form should be signed and dated by hand after printing out.
- B、 The appropriate photo should be pasted to the application form.
- C、 “MOFCOM Scholarship” should be selected in the source of finance.

2、 Apply for scholarship

(1) Procedures: Relative information from the item of "Study in china / Chinese Government Scholarship" on the homepage of the China Scholarship Council (www.csc.edu.cn). The applicant should fill in and submit the application form online first at <http://laihua.csc.edu.cn> and then submit the printed version and the supporting documents required by TONGJI University. All application materials marked with "Applying for the Chinese Government scholarship" should be signed, dated and pasted with photo.

(2) Notice:

- A、 The code of Tongji University is 10247, the field is Environmental Management and Sustainable Development.
- B、 The CSC number produced from the form would be used in filling the form of studying in China visa application.

3. Application Document

Please prepare the following documents before submission:

- (1) A recommendation letter from the current employer.
- (2) Copies of previous degree and diploma certificates.
- (3) Original or notarized transcripts of all courses from bachelor programme. Transcripts in languages other than Chinese or English

must be attached with notarized translations in Chinese or English

- (4) Research plan.
- (5) Copy of passport(not diplomatic one).
- (6) Copy of English level certificate.
- (7) Certificate of current employment.

3、 Submission

- (1) Submit all the application materials listed above mentioned in both hard copy and scanned copy to the Economic and Commercial Counsellor's Office of Chinese Embassy. Hard copy must include both the original copy and the photocopy. For emails and addresses of the Economic and Commercial Counsellor's Offices, please visit the English website of <http://www.china-aibo.cn>.
- (2) Submit a written request to the Economic and Commercial Counsellor's Office of Chinese Embassy for an official recommendation letter and clearly state:
 - a) Whether the applicant is willing to be considered for a similar program at other universities if the programs at ISSCAD are already full.
 - b) Other special requests if any.

Important notices

- a) All the documents to be submitted should be in Chinese or English. Otherwise, a notarized copy in Chinese or English is required.
- b) An original copy of degrees, transcripts and language certificates must be presented for on-site verification.
- c) Applicants will get back all the hard-copy materials, both original copies and photocopies from the Economic and Commercial Counsellor's Office. If admitted, they must take the documents to China and submit them to the school.

Deadline

June 30, 2017

Other Important Statement

Contact

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Web: <http://unep-iesd.tongji.edu.cn/>

Address: Room 903 Zonghe Building, Tongji University, No.1239
Siping Road, Shanghai, China

Other Notices

1. Application materials will not be returned regardless of the result of application.
2. Chinese government won't comment on the result of application.
3. The visiting fee of spouse or children won't be provided.
4. There'll be specification on procedures how to come to China in the admission files.