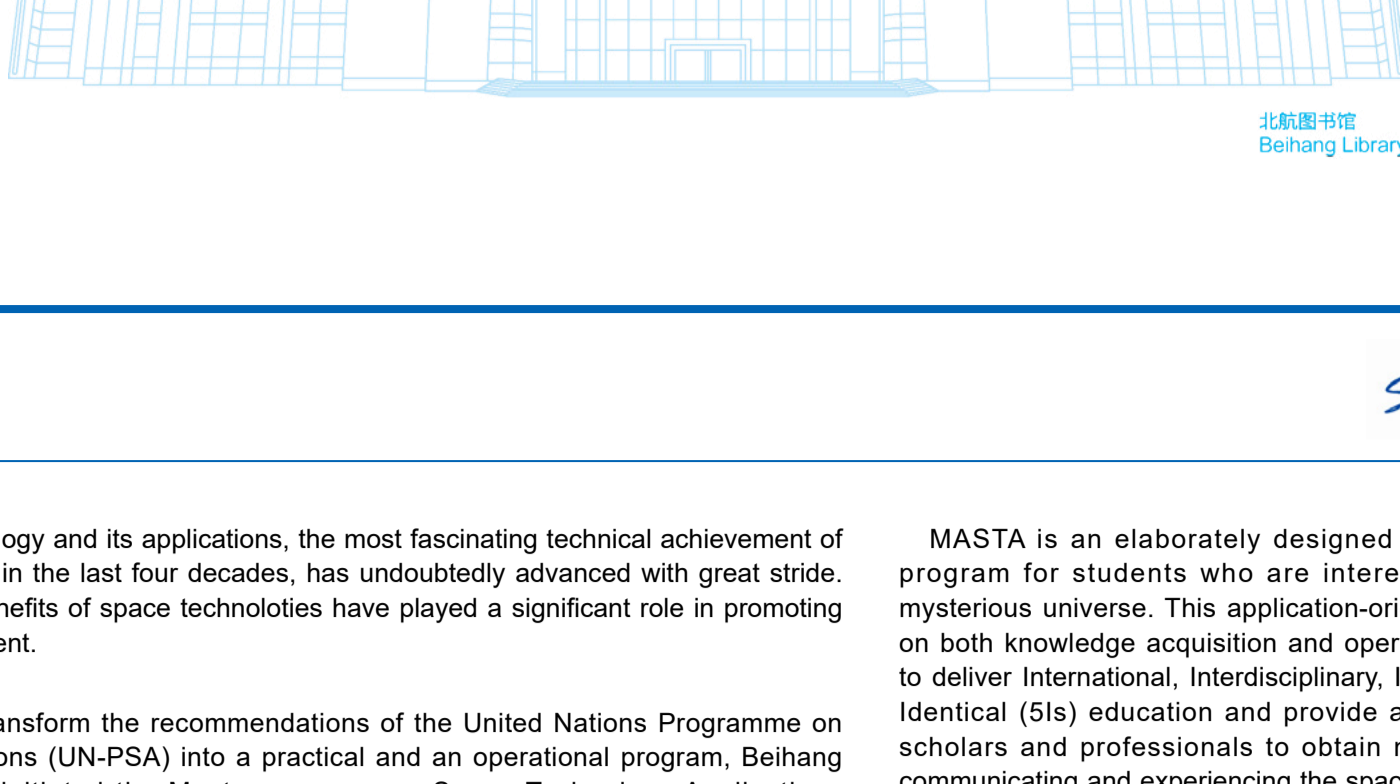




Regional Centre for Space Science and Technology Education
in Asia and the Pacific (China) (Affiliated to the United Nations)
联合国附属空间科技教育亚太区域中心(中国)

MASTA 2017

Master Program
on Space Technology Applications
Remote Sensing and Geo-information System
(RS & GIS)



北航图书馆
Beihang Library

Overview

Study at 北航

Space technology and its applications, the most fascinating technical achievement of the human race in the last four decades, has undoubtedly advanced with great stride. The practical benefits of space technologies have played a significant role in promoting social development.

In order to transform the recommendations of the United Nations Programme on Space Applications (UN-PSA) into a practical and an operational program, Beihang University has initiated the Master program on Space Technology Applications (MASTA) since 2006, and the program has been held nine times successfully till now. 100 students have graduated and got the Master's Degree on Space Technology Applications. 61 MASTA students from 18 countries are studying at Beihang in 2016.



MASTA is an elaborately designed and intensive Master program for students who are interested in exploring the mysterious universe. This application-oriented program focuses on both knowledge acquisition and operational training. It aims to deliver International, Interdisciplinary, Intercultural, Innovative, Identical (5Is) education and provide a powerful platform for scholars and professionals to obtain more opportunities for communicating and experiencing the space technology practice in China.

MASTA is designed to give participants a competitive edge by:

- Broadening their knowledge on space-related issues and activities and encouraging participants to use acquired knowledge and skills through practical, hands-on experience
- Developing the skills necessary for working effectively with colleagues from a diverse range of disciplines and cultures
- Placing the participants at the frontier of the industry through contact with space professionals
- Complying with international conventions
- Modularized curricula design
- Flexible study modes

This program is carried out according to the regulations and requirements of Beihang University. **The total duration of study is 1 year and 9 months in general.**

Introduction to RCSSTEAP (China)

Study at 北航

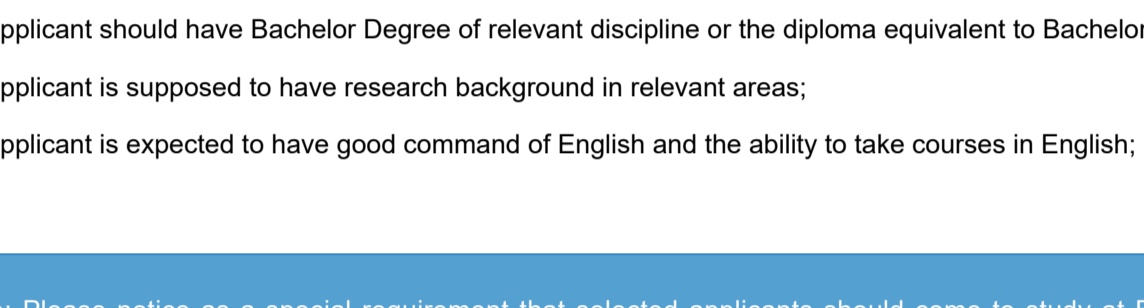


The Regional Centre for Space Science and Technology Education in Asia and the Pacific (China) (affiliated to the United Nations) RCSSTEAP in short) was established on November 17, 2014. The Centre is located at the main campus of Beihang University, Beijing, China.

The Centre, as an education and training entity supported by the Committee on the Peaceful Uses of Outer Space (COPUOS), was established with a mission to promote the peaceful use of space technologies for the benefit of humanity and to sensitize the countries within the region about space science and technology activities by educating and creating awareness through training, workshops, short courses, and outreach. It seeks to contribute to the

implementation of "Programme on Space Applications" promoted by COPUOS and to the enhancement of the education and training level as well as application capacity of space science and technology in Member States of the Centre through capacity building, information communication, training programs and professional visits.

For the purpose of facilitating the UN Space Applications Program and demands of the Asia-Pacific countries regarding space science and technology education, the Centre offers degree and non-degree programs with academic exchanges and consultation carrying out in the field of space technology applications.

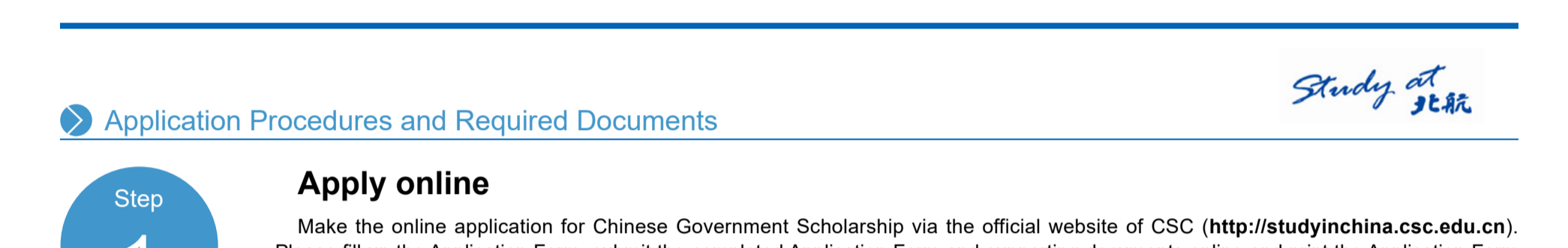
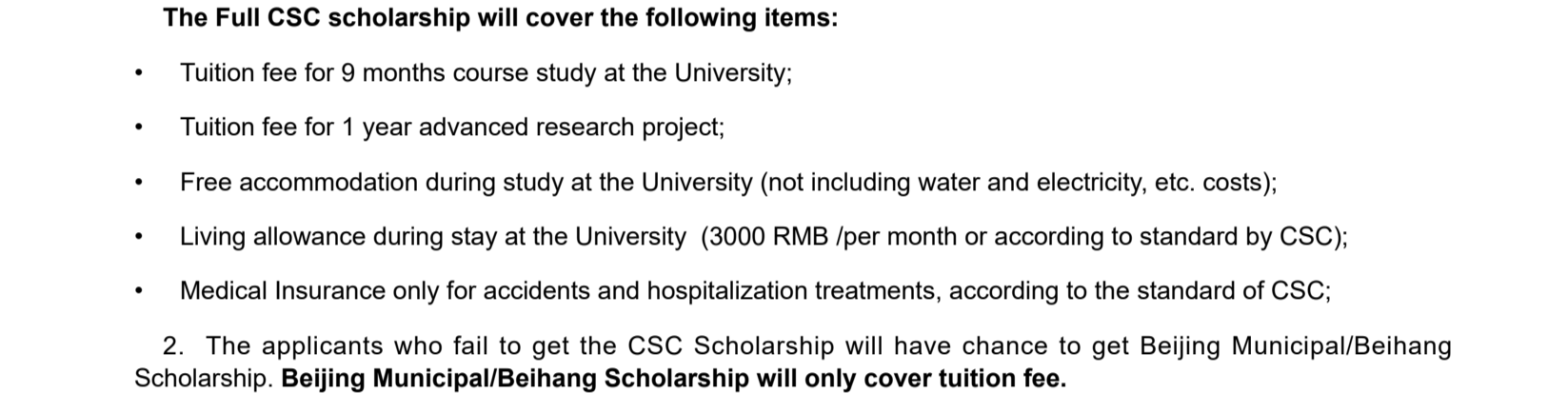


The main education and training fields of the Centre include Remote Sensing and Geographic Information System, Satellite Communications, Global Navigation Satellite System, Micro-satellite Technology, Space Law and Policy, etc.

The Centre has established extensive cooperation with space industries. A variety of internships and hands on opportunities are provided to the participants.

The Centre has internationally qualified academic and administrative staff with excellent facilities for education, accommodation and recreation.

Presently, the Centre has 10 member countries including Algeria, Argentina, Bangladesh, Bolivia, Brazil, China, Indonesia, Pakistan, Peru and Venezuela.



Application Qualifications

Study at 北航

- The applicant should be under the age of 35 in general;
- The applicant should have some professional experiences of working in space technology industry or research institutes;
- The applicant should have Bachelor Degree of relevant discipline or the diploma equivalent to Bachelor Degree;
- The applicant is supposed to have research background in relevant areas;
- The applicant is expected to have good command of English and the ability to take courses in English;

Note: Please notice as a special requirement that selected applicants should come to study at Beihang University with their Private Passports only (not official/service/other types of passport).

Scholarship and Financial Support

1. The applicants are welcome to apply for the Chinese Government Scholarship (CSC Scholarship) at Beihang University.

The Full CSC scholarship will cover the following items:

- Tuition fee for 9 months course study at the University;
- Tuition fee for 1 year advanced research project;
- Free accommodation during study at the University (not including water and electricity, etc. costs);
- Living allowance during stay at the University (3000 RMB /per month or according to standard by CSC);
- Medical Insurance only for accidents and hospitalization treatments, according to the standard of CSC;

2. The applicants who fail to get the CSC Scholarship will have chance to get Beijing Municipal/Beihang Scholarship. **Beijing Municipal/Beihang Scholarship will only cover tuition fee.**

Application Procedures and Required Documents

Study at 北航

Step 1

Apply online

Make the online application for Chinese Government Scholarship via the official website of CSC (<http://studyinchina.csc.edu.cn>). Please fill up the Application Form, submit the completed Application Form and supporting documents online and print the Application Form according to the requirements. Please note that the specialty should be chosen as "Space Technology Applications" and the language of instructions should be chosen as "English". Please also note that the "Program Category" should be "Type B" and the "Agency Number" of Beihang University is **10006**.

Note: The online application will begin around the middle of December 2016.

Step 2

Prepare documents

1. Application Form for Chinese Government Scholarship;
2. Highest Education Diploma (notarized photocopy or original one) or Certificate of Expected Graduation Date from the university studying currently;
3. Notarized Transcripts or original ones;
4. Study or Research Plan (no less than 500 words);
5. Two Recommendation Letters from Professors or Academic Experts;
6. Photocopy of Physical Examination Form and the Report on Blood Examination;
7. Photocopy of the homepage of Passport (the information page);
8. The List of Application Documents and Post Address confirmed.

Note: All the documents should be in duplicate. And the language of documents should be in English or Chinese or attached with translations in English or Chinese.

Step 3

Submit documents

Mail all required documents to the following address before March 25th, 2017.

Ms. Guo Yuanyuan

Address: International School of Beihang University, No. 37 Xueyuan Road, Haidian District, Beijing 100191, P.R. China.

Tel: +86-10-82339734, +86-13581523872

Note: In order to speed up your application process, scanned copies can be emailed to the Contact Person: gyy@buaa.edu.cn so that we can get your information in advance. And mail all the required documents to the Contact Person at RCSSTEAP(China) by the already set deadline (March 25, 2017). RCSSTEAP (China) and Beihang University will acknowledge the receipt of your application after evaluation. No application documents will be returned after submission.

Host Institution: Beihang University

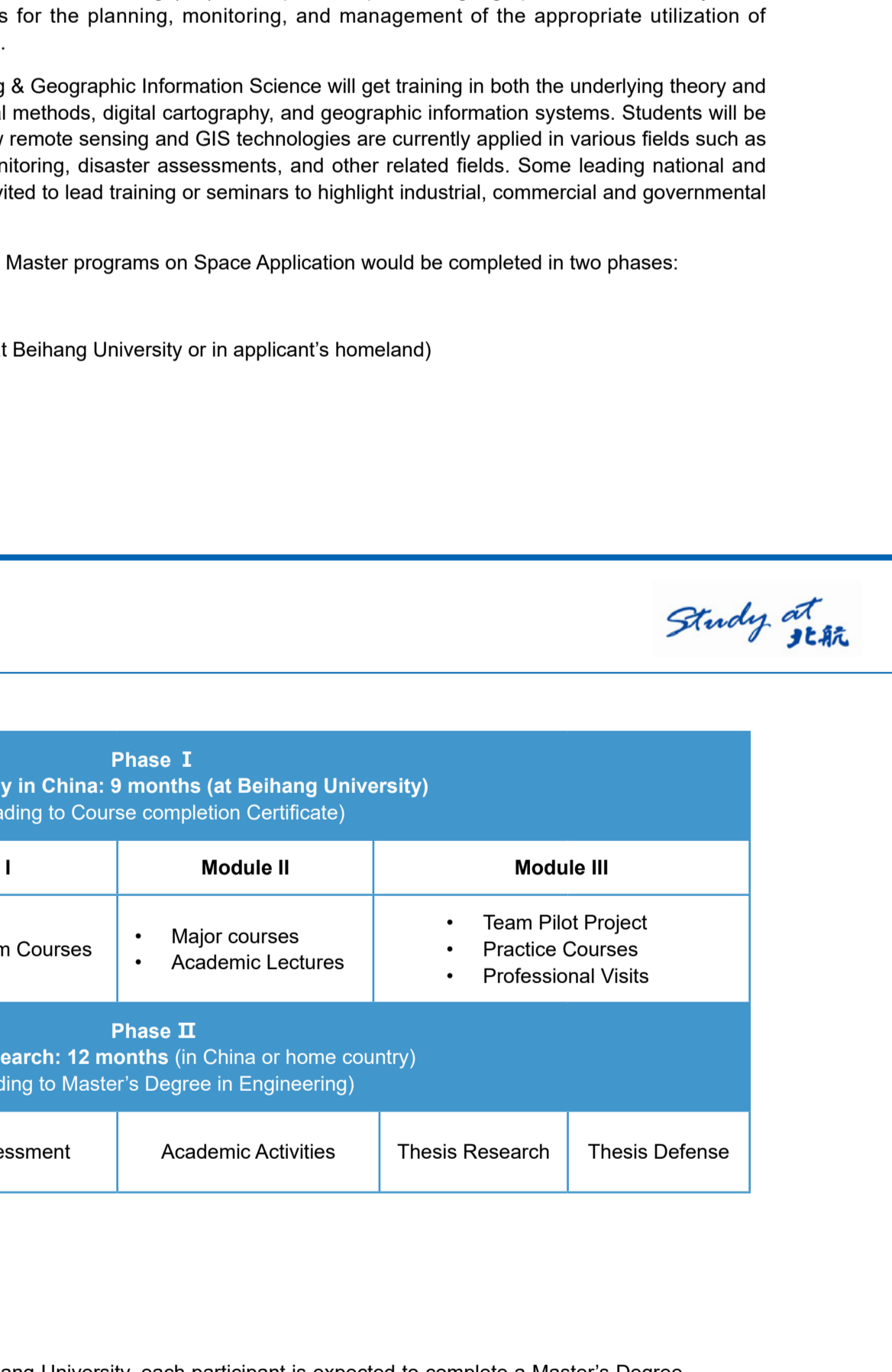
Study at 北航

Beihang University (BUAA), formerly called Beijing University of Aeronautics and Astronautics, was founded in 1952 and has been one of the state key universities of China since 1950s. Through more than 60 years development Beihang has grown into one of the nation's foremost research universities, combining disciplines in science, engineering, humanity, law, economics, management, and education, while maintaining the leading role in technology.

Beihang has now a total enrolment of over 29,000 full-time students, including 13,000 postgraduates. Over 2,000 international students from more than 100 countries are studying at Beihang in 2016. Among them over 1,200 are studying for degree programs, including more than 700 master and doctoral students, and more than 300 are studying Chinese language in Chinese Language Training Center of Beihang.

The University has been reputed for its competitive edge in such disciplines as aeronautics and astronautics, instrument science and technology, computer science and technology, management science and engineering, etc. English or Chinese are used as instruction language for master and doctoral programs.

Beihang is one of the top universities in China equipped with advanced laboratories and teaching facilities. Xueyuan Road Campus is located in the heart of "China's Silicon Valley" - Zhongguancun Science Park. The campus of Beihang is notable for its beautiful environment, convenient transportation, and completed living services, including various sports facilities, bank, post office, supermarkets, canteens, etc.



Important Dates

- Applicants should mail the required applications documents to the **Contact Person at RCSSTEAP (China) by March 25, 2017.**
- The results of admission will be notified by stages from **May 20 to early August 2017.**
- The Admission Notice and related documents will be mailed to the successful applicants around **August 15, 2017.**
- The program will begin at the middle of **September 2017.**

Contact Information

Study at 北航

- Ms. Guo Yuanyuan, Program Director, RCSSTEAP (China)
- Address: East Wing of Library, No. 37, Xueyuan Road, Haidian District, Beijing, China 100191, International School, Beihang University
- Telephone: +86-10-82339734
- E-mail: gyy@buaa.edu.cn
- Website: <http://www.rcssteap.org> & <http://is.buaa.edu.cn>



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Remote Sensing and Geo-information System (RS & GIS)

Remote sensing is the art and science of making measurements of the earth using sensors on airplanes or satellites. These sensors collect data in the form of images and provide specialized capabilities for manipulating, analyzing, and visualizing those images. A geographic information system (GIS) is a computer-based tool for mapping and analyzing feature events on earth. Remote sensed imagery is integrated within a GIS. The potential of remote sensing (RS) techniques, coupled with geographical information systems (GIS), are widely recognized as supporting tools for the planning, monitoring, and management of the appropriate utilization of resources at the country, regional and global levels.

MASTA Students specializing in Remote sensing & Geographic Information Science will get training in both the underlying theory and the application of remote sensing, spatial analytical methods, digital cartography, and geographic information systems. Students will be provided with many professional visits to learn how remote sensing and GIS technologies are currently applied in various fields such as natural resource management, environmental monitoring, disaster assessments, and other related fields. Some leading national and international geomatics practitioners will be invited to lead training or seminars to highlight industrial, commercial and governmental applications.

Referring to the Education Curricula of UN-PSA, Master programs on Space Application would be completed in two phases:

- (a) 9-month Course Study
- (b) 12 months for Advanced Research Project (at Beihang University or in applicant's homeland)

Training Program

Study at 北航

						
 民政部国家减灾中心		UNITED NATIONS Office for Outer Space Affairs			 International Centre on Space Technologies for Natural and Cultural Heritage under the auspices of UNESCO	
						

h Course List

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No.	Item	Class Hrs	Credits	Remark
Module I Platform Courses				
PC1-1	Probability and Statistics in Engineering	48	3	Select at least 3 compulsory credits
PC1-2	Theory of Matrix	48	3	
PC1-3	Numerical Analysis	48	3	
PC2-1	Matlab Programming	32	2	Compulsory
PC3-1	Space Environment, Orbit and Spacecraft Systems	48	3	Compulsory
PC3-3	Space Technology and Space Economy	18	1	Optional
PC4-1	Introduction to China and Chinese Language	54	3	Compulsory
Module II Major Basic Courses & Major Courses				
MC3-1	Principle of Remote Sensing	18	1	Compulsory
MC3-2	Physical Principles of Microwave Remote Sensing	32	2	Compulsory
MC3-3	Geographic Information System: Principle, Design and Practice	32	2	Compulsory
MC3-4	Remote Sensing Image Visual Interpretation	32	2	Compulsory
MC3-5	Remote Sensing Image Processing and Software Application	18	1	Compulsory
MC3-6	Geographic Project Design and Management	32	2	Compulsory

Degrees

After the 9-month course study at Beihang University, each participant is expected to complete a Master's Degree Thesis (1 year) at Beihang University/in Homeland.

Under the guidance of supervisors, participants are expected to select their research topics closely related to the practical space technology applications projects in their home countries.

The evaluation will be mainly focused on the topic of the thesis, range of the writer's knowledge, value and prospect of the thesis, etc.

Participants will be awarded with the Graduation Certificate of Beihang University and Master's Degree Certificate of the People's Republic of China when fulfilling the required credits and passing the thesis defense.

Faculty and Partners

Study at 北航

The faculty for this program consists of professors, experts and senior engineers from Beihang University and some other institutes or academies from China and abroad. The core faculty has long and varied experience in the field of space science and technology. In addition, they have acquired considerable experience over the years and are skilled in teaching and advising international students. The partners of this program include:



9-month Course List

Study at 北航

No.	Item	Class Hrs	Credits	Remark
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Module I Platform Courses				
PC1-1	Probability and Statistics in Engineering	48	3	Select at least 3 compulsory credits
PC1-2	Theory of Matrix	48	3	
PC1-3	Numerical Analysis	48	3	
PC2-1	Matlab Programming	32	2	Compulsory
PC3-1	Space Environment, Orbit and Spacecraft Systems	48	3	Optional
PC3-3	Space Technology and Space Economy	18	1	Optional
PC4-1	Introduction to China and Chinese Language	54	3	Compulsory

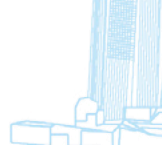
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MC3-2	Physical Principles of Microwave Remote Sensing	32	2	Compulsory
MC3-3	Geographic Information System: Principle, Design and Practice	32	2	Compulsory
MC3-4	Remote Sensing Image Visual Interpretation	32	2	Compulsory
MC3-5	Remote Sensing Image Processing and Software Application	18	1	Compulsory
MC3-6	Geographic Project Design and Management	32	2	Compulsory

Module III Team Pilot Projects				
PPC	Team Pilot Project	12 Weeks	8	Compulsory



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Contact Information



WEBSITE



WECHAT

ADD: East Wing of Library, Beihang University, No. 37 Xueyuan Road, Haidian District, Beijing, 100191, P. R. China

CONTACT PERSONS: Ms. Guo Yuanyuan, Ms. Cui Yizhuo

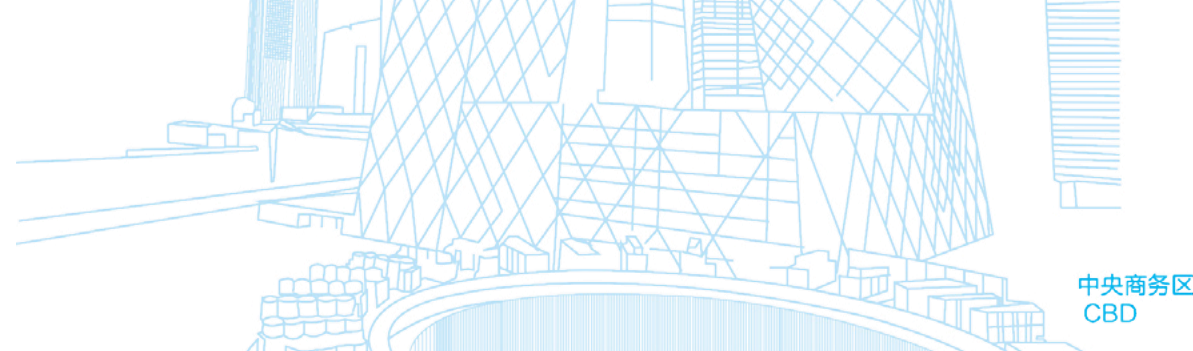
EMAIL: gyy@buaa.edu.cn; cuiyizhuo@buaa.edu.cn

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WECHAT: UN_Centre



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