

# Serving national resource strategy and striving for world class in Geology: China University of Geosciences (Beijing) education opening to the outside world in new era

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**Abstract.** The opening up of education to the outside world is an important part of reform and opening up, which is an important part of building a community of human destiny. As a geological institution with the advantage of science and technology, China University of Geosciences (Beijing) takes the initiative to serve the national resource strategy and carry out the work of opening up education to the outside world in the new era by promoting the strategy of internationalization of education, building a platform for international cooperation and exchange, improving the internationalization level of the faculty, expanding the two-way international exchange of students, exploring the internationalization construction index system of the university, and relying on China-Africa 20+20 to run Confucius Institute well.

**Keywords:** China University of Geosciences (Beijing), new era, education opening to the outside world.

## INTRODUCTION

Openness is the basic feature and inherent requirement of modern education, and opening up education to the outside world is an important trend in the development of education in the world. The opening up of education to the outside world has an important position in the national strategy and education development strategy. It is an important condition for improving the quality of education and building a strong education country and has a far-reaching significance of serving the international and domestic situation, promoting the exchange and mutual appreciation of civilizations, and advancing the progress of human civilization.

The opening up of education to the outside world is an important part of reform and opening up, which is an

important part of building a community of human destiny. General Secretary Xi Jinping made an important statement on the opening up of education to the outside world at the 19th National Congress: "Adhere to the basic state policy of opening up to the outside world, insist on opening the doors of the country for construction, actively promote the 'The Belt and Road'. The government will strive to achieve policy communication, facility connection, trade smoothly, financial integration and people-to-people contact, create a new platform for international cooperation, and add new momentum to common development. The goal of 'two hundred years' has put forward new requirements for the opening up of education to the outside world. ...Accelerate the construction of first-class universities and first-class

disciplines, and realize the internal development of higher education" (Xinhua News Agency, 2020).

### **Significance of opening up education to the outside world in the new era**

#### ***Opening up of education to the outside world is an important measure and inevitable choice to help Chinese economic and social development***

The opening up of education to the outside world is an important part of reform and opening up, and over the past 40 years, the opening up of education to the outside world has been an important measure to help Chinese economic and social development. At the beginning of reform and opening up, the Chinese economy was small in scale, its science and technology level was low, its comprehensive national power was weak, and there were many things to be done in all walks of life. So, education, as an important part of China's reform and opening up, liberated its mind, sought truth from facts, firmly expanded the scale of sending students abroad, accelerated international exchange and cooperation, and, over the years, absorbed advanced international educational concepts and experiences, and cultivated a large number of students with international vision and knowledge of international rules. Over the years, they have absorbed advanced international educational concepts and experiences and cultivated a large number of professionals with international vision and knowledge of international rules, which have not only helped the development of China's higher education but also provided a solid human foundation and intellectual guarantee for the construction of various fields such as the domestic economy and science and technology. In the 40 years of reform and opening up, China has achieved leaps and bounds in development, its comprehensive national power has been continuously improved, and it has made remarkable achievements in the world, which benefited from the unswerving exploration of China's education career on the road of opening up to the outside world.

The opening up of education to the outside world is an inevitable choice in response to the integration and development of the world. With the in-depth development of world multi-polarization, economic globalization, social informatization and cultural diversification, countries around the world are more closely connected than ever, and exchanges and cooperation in politics, economy and trade, and humanities are more frequent and extensive, and the integration and development of education is no exception, which has become a popular and trendy trend. Civilization is colorful because of communication, and civilization is rich because of mutual appreciation. Education, as an important force to promote the progress of human civilization, has the natural attributes of communication, dissemination and sharing. Only by adhering to an open and inclusive mindset, constantly

injecting new vitality and adding new impetus can education keep fresh and continuously promote its healthy and vigorous development.

#### ***Opening up of education to the outside world in the new era is a key condition for serving the strategy of strengthening education***

From the perspective of future challenges, insisting on the opening up of education to the outside world is a key condition for serving the strategy of strengthening education in the new era. Since the reform and opening up, the work of education opening up to the outside world has consciously served the overall work of the Party and the country, continuously improved the quality and level of talent training and discipline construction, and played an important role in enhancing China's educational strength and world influence. However, China's education is still at the stage of growth and development, still facing challenges such as insufficient innovative talents, weakness of some disciplines, insufficient application of achievements, etc. The international competitiveness and innovation ability of education still need to be further improved and must be gradually used by us to make up for the shortcomings through continuous learning from advanced ideas and introducing high-quality resources, for our own sake and taking in both. Practice and successful experience over the years tell us that accelerating and expanding the opening up of education meets the development needs and development laws of China's education industry, and is a key condition for accelerating the process of moving China from a large education country to a strong education country. General Secretary Xi Jinping has put forward new requirements for the good opening of education to the outside world in the new era (China Education News, 2020).

#### ***To accelerate and expand the opening up of education to the outside world in the new era***

Domestic high-quality development expectations and shortcomings and weaknesses coexist, facing a new era, a new situation, a new situation, the Party and the State have put forward new requirements, new tasks and new challenges for education, "the boat is more urgent in the middle of the wandering, and the road is steeper at the halfway point", at the halfway point in the midstream, we should be firmer in our beliefs, always keep the self-confidence of taking the lead and In the mid-stream, we should be firmer in our beliefs, always maintain the self-confidence and sobriety of seeking truth from facts, take in all, integrate Chinese and foreign, resolutely cope with the difficulties and challenges ahead, unswervingly speed up and expand the opening of the education, persistently make education bigger and stronger, and keep moving forward for the construction of a strong socialist modern

Table 1.

Year	Non-degree student	Undergraduate	Master student	Doctoral student	Total
2015	171	38	33	26	268
2016	63	55	51	45	214
2017	53	44	70	62	229
2018	31	49	76	69	225
2019	31	48	79	79	237
2020	18	54	77	63	212
2021	2	50	77	62	191
2022	6	38	74	72	190

country, and the realization of the great rejuvenation of the Chinese nation.

### IDEAS AND ACHIEVEMENTS OF CHINA UNIVERSITY OF GEOSCIENCES (BEIJING) IN OPENING UP EDUCATION TO THE OUTSIDE WORLD IN THE NEW ERA

"During the 13th Five-Year Plan period, the university insists on taking Xi Jinping's thought of socialism with Chinese characteristics in the new era as its guide, comprehensively implements the important remarks of General Secretary Xi Jinping on building a strong education country, deepens the reform of education, and further expands multi-level and multi-dimensional cooperation by upgrading the level of education opening to the outside world, strengthening cooperation with high-level universities and institutions in the world and The university will further expand multi-level and multi-dimensional cooperation by upgrading the level of education opening up, strengthening education cooperation with high-level institutions of higher education in the world and countries along "the Belt and Road", and deepening humanistic exchanges, so as to comprehensively enhance the service capacity of national education opening up in the new era and continuously improve the international influence of the university (Genhou *et al.*, 2020).

#### Cultivating high-quality talents that fit with the new era

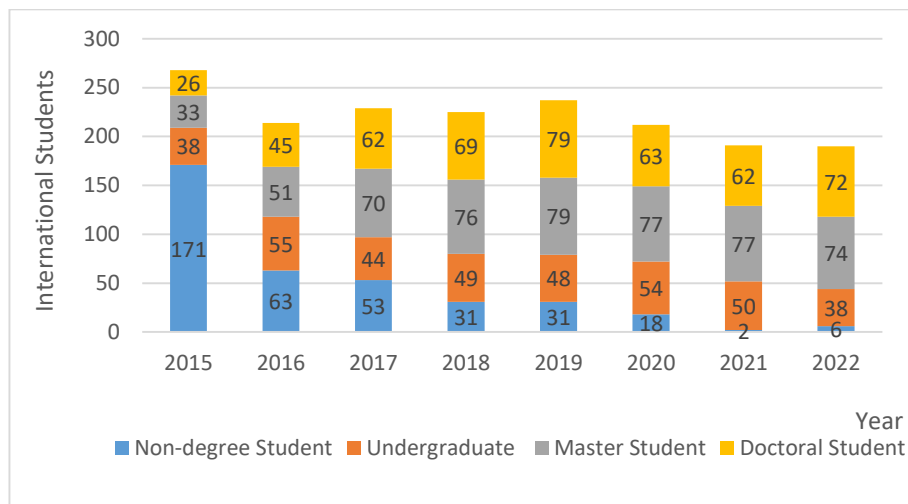
The primary task of education is to cultivate talents, and the new era requires high-quality talents to match it. China University of Geosciences (Beijing) actively attracts and gathers global high-end educational resources, increases the introduction of foreign experts, continues to strengthen the training programs for students going abroad, expands the scale of international students coming to China, and optimizes the training level; does a good job in the construction of Confucius Institute, spreading Chinese culture and promoting cultural exchanges.

"In the 13th Five-Year Plan period, the university will

focus on the national strategic needs and scientific frontier issues, serve the "One Belt, One Road" national top-level cooperation initiative, take the introduction of foreign high-end talents as an important measure to carry out the "double first-class During the "13th Five-Year Plan" period, the university focused on the national strategic needs and scientific frontier issues, served the "One Belt, One Road" national top-level cooperation initiative, took the introduction of foreign high-end talents as an important measure to carry out the "Double First-class" construction, took the international first-class disciplines as a reference, strengthened substantive cooperation with the world's first-class universities and first-class academic institutions, implemented nearly 60 national intellectual attraction projects, completed more than 400 university-level intellectual attraction projects, and offered more than 100 "Master Lecture" courses, reaching Thousands of students and teachers have been reached. We have introduced 17 high-level foreign talents such as overseas famous teachers and long-term special professors, and 719 experts, 80% of whom are from Europe and America. We have approved 4 discipline innovation and intellectual attraction bases, 85.78% of the experts and scholars have the title of professor or above, and 5 academicians are involved in the project cooperation, which is effective.

"During the 13th Five-Year Plan period, nearly 500 students studied abroad, of which more than 40% were publicly funded; 63 undergraduates participated in joint training programs with the University of Edinburgh (UK), Missouri University of Science and Technology (US), Pembroke University (NC), University of Waterloo (Canada) and University of Auckland (New Zealand). 747 students participated in various international exchange activities, including study visits, international conferences and cooperative research. Students participated in various international exchange activities, including visiting study tours, attending international conferences, and participating in collaborative research.

The University has formed a multi-level training system of undergraduate, master's and doctoral degrees, and 90% of the international students come from developing countries, which have a greater demand for exploration, openness and research in geology, resources and environment, which is highly compatible with the



**Figure 1.** Level distribution of international students from 2015 to 2022.

University's disciplinary advantages, schooling characteristics and development status. This is highly compatible with the disciplinary advantages, characteristics and development status of the university. "During the 13th Five-Year Plan period, 211 international students have been trained in China, and the percentage of graduate students is 60%. Through offering special courses in Chinese for geology majors, actively promoting English lectures, organizing regular symposiums for international students, and publicizing typical cases of outstanding international students, we encourage them to set higher goals and strive for more progress, and cultivate people who know and love China (Table 1 and Figure 1).

In 2017, Confucius Institute of the University of Namibia volunteer teacher Yixuan Wang was awarded the "2017 Confucius Institute Advanced Individual". In 2019, the Confucius Institute developed a localized textbook "Follow Me in Namibia" and held an intensive Chinese language course for tour guides; and organized Namibian students to participate in the "Chinese + Jewelry" training under the "20+20 Cooperation Program between Chinese and African Universities". "From 2017 to 2020, a total of 22 Namibian education officials and 77 university and high school students will participate in the activities in China (Yue *et al.*, 2021).

### **Create a friendly international environment in diplomacy**

The new pneumonia epidemic has caused the world to undergo a major change unprecedented in a century. The development of the epidemic, its impact on the global economy and the direction of the global order are full of uncertainties. The international situation is complicated and severe, the global supply chain is reorganized, and China and the United States are engaged in a new round

of the strategic game. Overcoming difficulties in various aspects, the university actively maintains communication with partner institutions and research institutes through various channels such as telephone, email, and the internet, further broadens the channels of foreign educational communication, innovates the ways of foreign educational communication, deeply explores the high-quality resources of partner institutions, strengthens the in-depth cooperation with the counterpart well-known institutions in the discipline, and builds a comprehensive, multi-level and multi-dimensional pattern of foreign educational communication.

"During the 13th Five-Year Plan period, we have steadily developed the scale of inter-university exchanges, formulated the measures of both "bringing in" and "going out", optimized the structure of inter-university exchanges, and continuously enhanced the international development. We have signed 27 cooperation agreements with global research institutions and universities, including Colorado School of Mines, Missouri University of Technology, Technical University of Freiberg, Rennes Business School, University of Padova, University of Edinburgh, University of Tsukuba, Niigata University, Macquarie University and University of Auckland, New Zealand, etc.

"During the 13th Five-Year Plan period, our university received visits from 100 partner institutions and agencies from all over the world and received 305 foreign guests. The university has conducted exchanges through a joint declaration of projects, joint publication of papers, inviting foreign scholars to give short-term lectures, holding academic seminars, and building laboratories together. A total of 577 groups of 1,260 people went abroad to carry out international exchange and cooperation, including the United States, Russia, France, Britain, Canada, Spain, Austria, Hungary, Japan, South Africa, Australia, Thailand and other countries. Among them, academic exchange visits such as international conferences accounted for

96%, which strongly guaranteed our teachers to carry out educational and scientific exchanges with their counterparts in internationally renowned institutions and further enhanced our academic level and international influence.

### **Improve the international influence of our university**

"During the 13th Five-Year Plan period, the internationalization level of our university's education has been gradually improved, and the construction of "first-class disciplines" has achieved fruitful results, with the US NEWS university ranking rising from 397th in 2017 to 355th in 2021, and the discipline of earth science entering the discipline of geosciences has been ranked among the top 1,000 global institutions in the field of geosciences by ESI, and many professors have been listed as highly cited scientists in the world.

The "Big Science Program - Deep Time Digital Earth" led by Academician Chengshan Wang was successfully selected as the first international big science program of the International Union of Geosciences (IUGS), which has attracted wide attention and positive response from the international academic and social communities. The International Commission on Stratigraphy (ICS), the International Paleontological Association (IPA), the International Association of Sedimentologists (IAS), and the National Geological Survey of the United Kingdom are participating in the program. The establishment of the DDE international research institutions cooperation network and organizational structure has formed a new pattern of Chinese leadership, global participation and win-win cooperation, promoting the paradigm change of geoscientific research in the era of big data, highlighting the leading role of our university in international scientific exchanges and in promoting international cooperation in related fields, vigorously promoting the cultivation of domestic leading talents and young top talents, and bringing together high-level talent teams.

The university encourages teachers to actively participate in international academic organizations to enhance the international discourse in their professional fields. The number of full-time teachers in the discipline appointed as editorial board members of high-level international journals has increased year by year, and they have served as editors-in-chief, associate editors-in-chief and editorial board members in international journals 82 times and held important positions in international academic organizations 37 times. Academician Deng Jun and Professor Qiu Kunfeng have guided our graduate students to establish the largest and most authoritative academic organization in the field of mineralogy, the Society of Economic Geologists (SEG) Student Chapter of China University of Geosciences (Beijing), which is also the first student chapter of an international academic organization led by our university; Associate Professor

Zhang Yuan guided our graduate students to apply for the establishment of the Society of Petroleum Engineers of the China University of Geosciences (Beijing) student chapter.

### **THE PATH TO PROMOTE THE UNIVERSITY'S EDUCATION OPENNESS TO THE OUTSIDE WORLD**

Through mutual appreciation, mutual integration and intercommunication, participate in globalized talent training, help the school's double first-class construction, practice high-level opening to the outside world, and do a good job in internationalizing students and internationalizing teachers. Strengthen the construction of the service and management system, improve and perfect the work plan for the prevention and control of the epidemic in the university's education opening to the outside world, and ensure the safe conduct of the university's education opening to the outside world under the conditions of regular epidemic prevention and control.

Seize the innovative talent cultivation, strengthen the cooperation and enhance the quality and efficiency in cultivating a team of people who know and love China, running schools outside China, building online courses, and summarizing and promoting experience. The university will make efforts to build a special brand of international education service "Study in North China" and improve the quality of cultivation of international students, promote the internationalization strategy of the university, and form a multi-level cultivation system for international students. The university will promote the "20+20 Cooperation Plan between Chinese and African Universities", strengthen the cooperation with the University of Namibia to build the Confucius Institute, and vigorously promote the humanistic exchanges and international cooperation between China and Africa.

The international situation is complicated and severe, we should always focus on the national strategy, clear the international situation, find the school's position, read the policy documents, do professional work and improve the relevant skills. Focusing on the spirit of the document "Opinions on Accelerating and Expanding the Opening-up of Education in the New Era", we should develop our ideas and apply the theoretical contents to our work, while paying attention to political sensitivity and security and confidentiality, so as to fully realize the socialist modernization and the great rejuvenation of the Chinese nation, and add bricks to the opening-up of education in the new era.

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