

Inherit the Excellent Traditions of the Northwest Associated University and Build a World-Class University With Chinese Characteristics

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Abstract

The Northwest Associated University has laid a foundation for higher education in Shaanxi and the Northwest and has made extraordinary contributions to the development of culture and education in the Northwest. The Northwestern Polytechnical University was founded on the basis of the Northwest Associated University. The Northwest Associated University adheres to the back part of the country, preserves the resources of higher education, and continues the cultural lifeline; the Northwestern Polytechnical University is rooted in the west, inherits the fine traditions of the Northwest Associated University, and adheres to the characteristic development. Northwestern Polytechnical University seizes the opportunity of “double first-class” construction, promotes the spirit of aerospace, and comprehensively opens a new journey for building a world-class university with Chinese characteristics.

Key words: Northwest Associated University; Northwestern Polytechnical University; Adhere; Inherit; Innovation; “Double first-class” construction

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“Northwest Associated University has promoted the

educational and cultural development of Shaanxi and even the development of economy and society of the entire western region.” (Dang & Shi, 2015) Northwest Associated University was located in Hanzhong City, which has established a standard of higher education in Shaanxi and even the Northwest. It has contributed greatly to the development of culture and education in the Northwest and helps preserve the resources of higher education and continue the cultural lifeline. In July 1938, the Northwestern Polytechnical University was founded on the basis of the School of Technology of Northwest Associated University. For decades, Northwestern Polytechnical University has adhered to, passed on and promoted the excellent tradition of the Northwest Associated University, “rooted in the west, dedicated to national defense, and pursuing excellence”.

1. ADHERE TO THE BACK PART OF THE COUNTRY, PRESERVE THE RESOURCES OF HIGHER EDUCATION, AND CONTINUE THE LIFEBLOOD OF CULTURAL EDUCATION

1.1 Determined to Develop and Open the First of Higher Engineering Education in Northwest China

On April 3, 1938, the Ministry of Education renamed the National Temporary University in Xi'an as the “National Northwest Associated University”, also known as the “Northwest Associated University”, according to the “Planning Program for Colleges and Universities in Beijing, Tianjin and Shanghai Area” adopted by the 350th meeting of the Executive Branch of the National Government. In order to develop higher education in the northwest region and improve the cultural level of the border provinces, there are 6 colleges and 23

departments including liberal arts colleges, law schools, and engineering colleges. In July 1938, the Ministry of Education of the National Government issued Order No. 6074. The College of Engineering of National Northwest Associated University, and School of Engineering of the National Northeastern University, and the Private Jiaozuo Institute of Technology were merged into the National Northwest Institute of Technology. In the early stage of preparation, the National Northwest Institute of Technology has 8 engineering departments including civil engineering, metallurgical engineering, mechanical engineering and so on. In the arduous years of war-torn, the National Northwest Institute of Technology brought together the experience, fine traditions, and faculty members from the former National Beiyang Institute of Technology, School of Engineering of the Peking University, the School of Engineering of National Northeastern University, and the Private Jiaozuo Institute of Technology. These have made the National Northwest Institute of Technology the only higher engineering institution in the northwest region with relatively complete disciplines and professional faculty. This is really a move to “turn the tide”, opening the precedent of higher engineering education in the northwest region, making the National Northwest Institute of Technology become the cradle for the cultivation of higher engineering and technical talents for the country during the Anti-Japanese War (The school history compilation team, 1995). In August 1939, the Northwest Associated University was completely divided into five schools including the National Northwest University, the National Northwest Institute of Technology, the National Northwest Agricultural College, the National Northwest Medical College, and the National Northwest Teachers College. It has been cultivated in the northwestern region of China with a relatively complete higher education system including “general, engineering, agriculture, medical, and teaching”. The National Northwest Institute of Technology is a part of current Northwestern Polytechnical University.

1.2 Relocated to Guanzhong, the Teachers, Students and Staff of the School Gathered Together To Promote Development

After the victory of the Anti-Japanese War, the headquarters of the National Northwest Institute of Technology was located in Xianyang, and the branch was located in Xi’an. “Fortunately, the plan was well-planned and well-organized ahead of time. The teachers, students and staff of the school worked together to help each other to pack and ship the resources. The liaison stations were set up at Hanzhong, Shuangshipu, Baoji, etc. along the way, and the left-behind office was set up at Gulu Dam to take care of it. All personnel, materials, equipment, etc. finally arrived in Xi’an safely in November 1946. “ (The school history compilation team, 1995) The National Northwest Institute of Technology aims to “learn high-

level knowledge, cultivate specialized talents and develop industry in the northwest”. After the victory of the Anti-Japanese War, everything needed to be revitalized. The teachers and students of the National Northwest Institute of Technology faced with hardships, worked diligently, and developed in the areas of education and teaching reform, laboratory and library construction.

1.3 Departmental Adjustment, Adjustment and Reconstruction Based on Department

After experiencing the Chinese Communist Revolution, the Northwest Institute of Technology had a new historical opening. On December 8, 1950, the Northwest Ministry of Education announced to change the school name from “National Northwest Institute of Technology” to “Northwest Institute of Technology”, and a new school seal was issued and activated. In 1952, colleges and universities across the country went through structural adjustments in the colleges and departments and developed a number of independent engineering colleges. From 1952 to 1953, the Northwest Institute of Technology established the professional setting based on the adjustment of department. From 1955 to 1956, it was gradually transformed from a general higher engineering school to a national defense engineering college. On July 4, 1955, in accordance with the spirit of the relevant directives of the central government, in order to make the construction of higher education fit the strategic needs of national industrial development planning and national defense construction and deployment, the Ministry of Higher Education issued a document to inform the Northwest Institute of Technology: “Decision to change the Northwestern Institute of Technology to special (national defense) engineering college in the summer of 1956, and would be managed by the Second Ministry of Machinery Industry, “ (The school history compilation team, 1995). It also adjusted the original profession of the school, including metallurgical, oil and gas exploitation, industrial and civil building structures, machinery manufacturing processes and other majors. In May 1956, the Ministry of Higher Education issued the “Proposal on Reconstructing the Northwest Institute of Technology” and moved the Northwest Institute of Technology to Xi’an. The reconstructed Northwest Institute of Technology has 4 departments and 12 majors, most of which are related to national defense military, as shown below:

Departments	Majors
1st Mechanical	Artillery design and craft, weapon design and craft, naval gun design and craft
2nd Mechanical	Shell design and process, detonator design and process
3rd Mechanical	Mine design and craft, torpedo design and craft
4th Mechanical	Mechanical manufacturing process, metallurgy and heat treatment, metal pressure processing, casting, welding

Note: From the “Northwestern Industrial University History” (1995 edition), p. 90.

In 1956, the adjustment and reconstruction of the Northwest Institute of Technology was much stronger and far-reaching. On the one hand, some of the original departments and professions were transferred. Today, colleges and universities in Beijing and Xi'an have departments that were transferred from the Northwest Institute of Technology (such as oil, civil engineering, water conservancy, electrical engineering, etc.), forming an important force for the establishment of new schools at the time. The many adjustments of the faculty of the Northwest Institute of Technology have poured a lot of vitality into the development of brothers' colleges and universities and have made extraordinary contributions to the development of the national higher education. On the other hand, some new professions have been added, especially the national defense military industry, and some of them are also the first ones in China. Some of the newly added specialties lack professional teachers and equipment, and they do not understand their connotations and requirements and lack the necessary technical materials. The task is complex and difficult. However, the faculty and staff of the Northwest Institute of Technology focus on the overall situation, and actively support the needs of the country, bravely take the heavy responsibility, and strive to overcome the difficulties with the supporting spirit, be determined and work hard.

1.4 Air China Airline Moved Westward, With the Goal of "Dedicated to the Aviation Industry of the Motherland"

On June 8, 1955, the Ministry of Higher Education issued a notice and decided to move East China Aviation Academy to Xi'an. Since August 1956, more than 5,000 employees and family members of East China Aviation College have traveled west to Xi'an. "A new aviation school in Xi'an, which specializes in aviation for defense science and technology, was born." The teachers and students are determined to "devote themselves to the aviation industry of the motherland". The teachers and students of East China Aviation College responded to the national call and valued the overall situation as the most important one. They voluntarily gave up Nanjing's relatively comfortable and good living conditions. They went to the northwest of the difficult conditions and became the pioneers of the Yellow Land and the pioneers of the development of the western region. This undoubtedly left a page in the history of China's higher education. With tenacious will, noble morality and selfless dedication, teachers and students of Air China Airline interpret the spirit of "moving the motherland, taking care of the overall situation, working hard, and dedicating to aviation". The "Westward Movement Spirit" is not only the backbone of the intellectuals, "the ideal of carrying the dreams, overcoming difficulties, and contributing silently", but also the great dedication of the intellectuals "giving up the small family for the nation". The "Westward

Movement Spirit" is an indispensable part of the spirit of the Northern Polytechnical University, and it is also a valuable spiritual wealth for all the Western workers.

In short, the establishment of the Northwest Associated University is the beginning of a modernized higher education system with a first-class teaching and research level in Shaanxi and even in the northwest. Because the Northwest Associated University was not only composed of the best engineering universities in China at that time, but also because the "Northwestern Associated University and its subsequent schools in the northwest have also established the discipline standard of higher education in Northwest China" (Dang & Shi, 2015). In October 1957, the Northwest Institute of Technology and Xi'an Aviation College merged to form a comprehensive national defense industrial university, Northwestern Polytechnical University. Northwestern Polytechnical University was born out of the Northwestern University of Technology, and the fine tradition was passed down from generation to generation. Northwestern Polytechnical University has always adhered to and passed on the excellent school-running tradition of the Northwest Associated University, "rooting the west, dedicating to national defense, and pursuing excellence."

2. ROOTED IN THE WEST, ADHERING TO THE FINE TRADITIONS AND INSISTING TO THE DEVELOPMENT OF NATIONAL DEFENSE CHARACTERISTICS

At the beginning of its establishment, Northwestern Polytechnical University was committed to building a comprehensive national defense industrial university and training the national defense industry for the country.

2.1 Progressed and Developed Slowly in Construction of All Aspects, and Achieved Certain Results

At the beginning of the merge, Northwestern Polytechnical University has significantly enhanced its strength. As of the end of 1957, there were 6 departments, 14 majors, 31 teaching and research groups, and 22 laboratories. The departments and their professional settings are shown below:

Departments	Majors
Mathematics and Mechanics	Applied Mathematics
Chemical Engineering	Chemical fibers and plastics
Underwater weapon system	Torpedo, mine
Engineering	Mechanical manufacturing technology, metallurgy and heat treatment workshop equipment, metal pressure processing and machine engineering, casting technology and equipment, welding technology and equipment

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Departments	Majors
Aircraft system	Aircraft design, aircraft crafts, helicopter professional
Engine system	Engine design, engine technology

Note: From the History of Northwestern Industrial University (1995 edition), p. 221.

From 1958 to 1960, Northwestern Polytechnical University focused on the “education revolution.” In February 1961, the central government approved seven universities including Northwestern Polytechnical University to be transferred to the former National Defense Science and Technology Commission. In June, the former Commission of Science, Technology and Industry for National Defense instructed the Northwestern Polytechnical University to “mainly take the aircraft as the mainstay and focus on the development of missiles and underwater weapons.” In September, the central government approved the trial of the “Provisional Work Regulations (Draft) of the Ministry of Education directly under the Ministry of Education” (referred to as “sixty regulations for colleges and universities”). Northwestern Polytechnical University follows this regulation, which makes the school enter a new stage of “adjustment, consolidation, enrichment and improvement”. In 1962 and 1965, it was approved and adjusted twice by the former Commission of Science, Technology and Industry for National Defense. In 1963, the “Second Department” (the Department of Chemical Engineering) and the “Ninth Systems” (the Department of Automatic Control) were revoked. As of 1965, Northwestern Polytechnical University has 7 departments and 29 majors. It has initially formed a relatively complementary discipline system with the characteristics of “defense industry”, and the school has entered the ranks of national key universities.

The “Cultural Revolution” has caused serious damage to the normal development of the school. During the period, in February 1970, the Department of Aeronautical Engineering of Harbin Institute of Engineering selected eight majors: Aircraft Design, Aircraft System Design, Aero Engine Design, Aerodynamics and so on. In March, the Department of Underwater Weapon of Northwestern Polytechnical University was placed under the Ministry of Machinery Industry. In July, the helicopter design and manufacturing major of Northwestern Polytechnic University was transferred to Nanjing Aeronautical College. The aircraft accessories and engine accessories were combined into aviation hydraulic pressure accessories. The structural mechanics and strength design of the aircraft was revoked. Other majors were either merged or revoked. In 1974, the aviation weapons major of Northwestern Polytechnical University was transferred to the East China Institute of Engineering. By the end of the “Cultural Revolution”, the number of majors of Northwestern Polytechnical University had shrunk

to 19, and the number of professions became smaller and smaller. Even the only applied science majors for “Aviation” no longer existed.

2.2 Grasp the Opportunity to Continuously Develop and Improve in the Process of Promoting Reform

In December 1978, the Third Plenary Session of the 11th Central Committee of the Communist Party of China was held, and Northwestern Polytechnical University ushered in new development opportunities. In December 1982, the school held the sixth party member congress, which depicts the blueprint for the development of the school during the “seventh five-year plan”. Before 1985, with the adjustment and rectification as the center, “proactively and prudently carry out professional adjustment and transformation, and effectively change the current issues of too many divisions of the profession, more attention on the theory than practice, and blind renovation; transform the military industry with appropriate addition of civil and management engineering and other aspects of civil and general professional” (The school history compilation team, 1995). In December 1984, the school prepared a seven-year plan based on the relevant requirements of the former Ministry of Aviation Industry’s “Designation of the 1984-1990 7-year development plan as one of the key tasks of the year”, which proposed “to build the school into its own high-level teaching and scientific research center with high academic level” and “make efforts to reach domestic advanced level in 30 fields, reach international level in 10 fields, complete the construction of 16 key disciplines (professionals), develop marginal and emerging disciplines” (The school history compilation team, 1995). During this period, with the development of the national economy, the national defense industry was shifted from “the military-based” to the “military-civilian combination”, and it was urgent to accelerate the adjustment and transformation of the profession to reverse the situation of “little professions and the application of science majors no longer exists “ caused by the “Cultural Revolution” in the past decade. All majors have resumed admission. In January 1985, the Ministry of Education issued the “Regulations for the Revision of Undergraduate Majors in Engineering in Higher Engineer Schools”, which pointed out the direction for the professional adjustment of colleges and universities. Northwestern Polytechnical University took this opportunity to comprehensively adjust the professional layout and gradually formed a comprehensive university structure with a combination of “mainly engineering, science, management, and liberal art”. By the end of 1985, Northwestern Polytechnical University had 15 departments and 39 majors, as shown in the following table:

Departments (15)	Major (39)
Mathematics and Physics	Applied mathematics, applied physics, engineering mechanics
Mechanics	Mechanical design and manufacturing (1)
Nautical Engineering	Proximity fuse and detection technology, underwater guiding electronic technology, underwater dynamic mechanical engineering, underwater self-navigation engineering, automatic control of underwater self-navigation
Materials Science and Engineering	Metal materials and heat treatment, forging engineering, foundry engineering, welding engineering, non-metallic materials science and engineering
Aircraft	Aircraft design, aerodynamics, aircraft structural strength
Electronic Engineering	Electronic Engineering, Fire Control and Command System Engineering, Radio Technology
Aeroengine	Aeroengine, Thermal Engineering, Aerodynamics Control Engineering
Aerospace Engineering	Missile design, solid rocket motor, flight mechanics, missile guidance
Automatic Control	Aircraft automatic control, electrical technology, fluid control and manipulating systems, inertial navigation and instrumentation
Aircraft Manufacturing Engineering	Aircraft manufacturing engineering, mechanical manufacturing process and equipment, mechanical design and manufacturing (2)
Computer Science and Engineering	Computer and application, information system engineering, computer software
Management engineering	Industrial management engineering
Social Science	Ideological and political education
Foreign Languages	--
Construction Engineering	Industrial and civil construction engineering

Note: From the History of Northwestern Industrial University (1995 edition), p. 375.

2.3 Reform and Innovation, Gradually Highlighting the Characteristics of “Three Aviation” in Striving for First-Class

In May 1986, Northwestern Polytechnical University held the seventh Party Congress Meeting, which clearly established the “multi-discipline with the combination of three aviation, military-civilian, and science and engineering management”. “Insist on reform, strive for first-class, and get on the advanced university ranks in China.” The school selected a total of seven subjects and majors, including aircraft structural strength, aircraft manufacturing engineering, and underwater weapon science and engineering, as key construction targets, and constructed in phases and in batches. During the “Seventh Five-Year Plan” period, under the difficult conditions, the school “dare to face the reality and meet the challenge. It relies on the self-reliant and hard-working spirit of Yan’an. It relies on the spirit of aerospace engineering with strong synergy and selfless dedication. (*Outline of development of Northwestern Polytechnical University*, 2003, pp.162 & 164). This great spirit has become a valuable spiritual asset for everyone in the Northwestern Polytechnical University. During the “Eighth Five-Year Plan” period (1991-1995), the school “grabbed the opportunity to innovate and deepen reform and development.” In January 1994, the school held the first scientific construction work conference to reach a consensus on the “leading role” of scientific construction. The meeting stressed that “we must adhere to the characteristics of the main subject of the ‘Three Aviation’, give full play to its advantages, strive to occupy the leading position in the country, serve the national defense construction, and contribute to the training of high-level talents for national defense and the

task of completing national defense scientific research” (*Outline of development of Northwestern Polytechnical University*, 2003, pp.162 & 164). The school has made remarkable achievements in scientific construction. As of 1995, there were 22 doctoral programs, 58 master programs, and 5 postdoctoral mobile stations, which increased by 57%, 56.8% and 150% in five years, respectively. A number of dominant disciplines in the school have taken the lead in domestic institutions and laid a solid foundation for the development of the discipline during the Ninth Five-Year Plan period.

In September 1996, Northwestern Polytechnical University became the university to rank among the “211 Projects” during the first round, providing a good opportunity for the school to achieve further success. During the “Ninth Five-Year Plan” period (1996-2000), the school focused on the construction of key disciplines in the scientific construction, highlighting the characteristics of the “three aviation”, focusing on the construction of 11 discipline construction projects including advanced airfoil aerodynamics, solid rocket engines, underwater weaponry and intelligence, aerospace new materials and materials thermoforming special technology. During the “10th Five-Year Plan” period (2001-2005), the school faces the main battlefield of the national economy and the development of the western region. The scientific construction pays more attention to improve the overall strength of the discipline and optimize the structure and layout of the discipline. The scientific construction of the school has a certain change compared with the “Ninth Five-Year Plan”. The implementation of the principle of “adhering to characteristics, strengthening professions, strengthening foundation, focusing on innovation, and

developing coordinately” focuses on the construction of key disciplines for national defense, more construction on key disciplines, emerging and interdisciplinary construction, and the discipline construction for the development of the western region. Among them, the key disciplines of national defense characteristics include: advanced aircraft design technology, intelligent underwater vehicle and marine environment monitoring, material precision forming technology, aerospace structural functional materials, space maneuvering dynamics and key technologies for control. In 2002, the school was included in the “Joint Construction by Four Sides” of the National Defense Science and Technology Commission, the Ministry of Education, the Shaanxi Provincial People’s Government and the Xi’an Municipal People’s Government, marking the official inclusion of Northwestern Polytechnical University within “the construction of several high-level universities ‘986’ project ” ranks and left a strong and colorful ‘mark’ in the developing history of the school.

2.4 Predicting the Future Based on the Past, Insisting on National Defense Characteristics, Comprehensive Strength and Level of Improvement

During the “Eleventh Five-Year Plan” period, the disciplines in aviation, aerospace, navigation, materials and other fields have achieved remarkable results, and some researches have reached the international first-class level. The school has done well in discipline construction, and the school’s comprehensive strength and school-running level have improved significantly. By the end of the “Eleventh Five-Year Plan”, the school has 20 doctoral degree programs at first-level disciplines, 57 doctoral programs, 101 master programs, 55 undergraduate programs, and 38 first-level subjects covering 8 disciplines. There are doctoral programs in the four disciplines of engineering, science, management, and law. It forms engineering and science-oriented, distinctive discipline system through the coordinated development of three aviation (aviation, aerospace, navigation) discipline group, 3M (materials, mechanics, machinery) subject group, 3C (computer, control, communication) subject group, science group, and “management, literature, economy, and law “ discipline group. During the “Twelfth Five-Year Plan” period, the school coordinated the “985 Project”, “211 Project”, and national defense specialty disciplines and other construction projects, implemented the construction of the discipline, built the discipline system of “three aviation leading, two integration”, and received new achievements in the construction of the discipline platform, newcomers and new directions, degree placement and subject evaluation. The strength and level of the discipline have been significantly improved. A distinctive disciplinary system has been constructed. At

the end of the “Twelfth Five-Year Plan”, the school has 21 doctoral degree programs at the first-level disciplines, 69 doctoral programs, and 118 master programs. It covers 40 first-level subjects in 9 disciplines. There are doctoral programs in the four disciplines of engineering, science, management, and law. Third, emerging cross-disciplinary fields are constantly increasing. While focusing on the key points of the school, the discipline construction of the school attaches importance to and encourages the construction of more emerging interdisciplinary and applied basic disciplines. Through the special construction of “new directions for newcomers”, significant progress has been made in the emerging interdisciplinary fields such as new materials, micro/nano technologies, new concept aircraft, and life sciences.

Disciplines and majors are the basic framework for the survival and development of higher education. After decades of faculty adjustment and discipline construction, the major disciplines of Northwestern Polytechnical University have gradually become clear and growing. In particular, the discipline of national defense has developed rapidly, with outstanding achievements, laying a solid foundation for the long-term development. Northwestern Polytechnical University adheres to the west, adheres to the tradition, does not disgrace its mission, and serves the national defense and dedication to aviation with the spirit of “three realities and one newness.”

3. ALWAYS REMEMBER THE INITIAL DREAM, REMEMBER THE MISSION, AND FULLY OPEN THE NEW JOURNEY OF BUILDING A WORLD-CLASS UNIVERSITY WITH CHINESE CHARACTERISTICS

The “Thirteenth Five-Year Plan” period is the decisive stage for China to build a moderately prosperous society in all respects. It is a crucial period for Northwestern Polytechnical University to accelerate the construction of “double first-class” and realize connotative development. Having a first-class university and a first-class discipline is an important symbol of the international competitiveness of higher education, and an important guarantee for cultivating innovative talents. The school revolves around the fundamental tasks of morality education, taking the construction of world-class universities and first-class disciplines as a guide, taking the country’s major strategic opportunities, comprehensively deepening comprehensive reforms, continuously increasing the intensity of opening up schools, coordinating and promoting various tasks, and fully opening up the new journey of construction of world-class universities with Chinese characteristics.

3.1 The “Double First-Class” Construction Has Ushered in an Unprecedented Major Strategic Opportunity

Education is the cornerstone of national rejuvenation and social progress. Since the 18th National Congress of the Communist Party of China, the government has put forward higher requirements for the reform, development and innovation of higher education. In October 2015, the State Council issued the “Overall Plan for Coordinating the Advancement of World-Class Universities and First-Class Disciplines”. Building a world-class university and first-class disciplines is a major strategic decision made by the Party Central Committee and the State Council. It aims to improve the level of China’s education development, strengthen the country’s core competitiveness, and lay the foundation for long-term development. The “double first-class” construction should follow the “four comprehensive” strategic layout and the decision-making arrangements of the Party Central Committee and the State Council, adhere to the Chinese characteristics and the world-class as the core, and take the moral education as the foundation and take the innovation-driven development strategy and serving the economic society development as the direction, accelerate the establishment of a number of world-class universities and first-class disciplines, enhance the comprehensive strength and international competitiveness of China’s higher education, and provide strong support for the realization of the “two centenary goals” and the Chinese nation’s great rejuvenation of the Chinese dream.

3.2 Make Plans, Promote Double-Class Construction in Comprehensive and Deepening Reform

In December 2015, President Wang Jinsong pointed out in his speech “Promoting First-Class Universities and First-Class Disciplinary Construction Mobilization Meetings” that “in the past 20 years, the school has seized the historical opportunity of the implementation of the ‘211 Project’ and ‘985 Project’. The school-level and overall strength have made great progress and laid the foundation for the rapid development. However, it is undeniable that in the increasingly fierce competitive environment, the developing rate of the school has slowed down in recent years compared with similar universities and domestic first-class universities. There is a gap.” The teachers and students of Northwestern Polytechnical University have clearly realized the serious challenges the school is facing. They have not forgotten their initial intentions and continue to advance. They have taken the opportunity to comprehensively promote the comprehensive reform of the school and the construction of “double first-class”, persist in doing so for a long time, persist in surprisingly winning, and In the comprehensive deepening reform, we will promote the construction of “double first-class”, build

a first-class university, build a first-class discipline, and cultivate first-class talents.

For a long time, Northwestern Polytechnical University has carried forward national dreams, took the national mission, and wrote a glorious chapter of education, saving the country, rejuvenating the country through science and education, and strengthening the country with military power. For a new era, a new starting point, school needs to set new goals and take on new missions. In July 2019, the school held the thirteenth Party Congress Meeting. The report clearly stated that it is necessary to “work together and move forward, and comprehensively start a new journey of building a world-class university with Chinese characteristics.”

3.3 Surprisingly Winning, Forming a Disciplinary System With Obvious Advantages and Reasonable Layout

“Sun Tzu’s Art of War · Powerful Articles”: “It is a general rule in war that the ordinary force is used to engage and the extraordinary force to win victory. The warcrafts of a commander skilled in using extraordinary force to win victory are as inexhaustible as boundless heaven and earth or as endless as flow of running rivers” People who are good at using extraordinary force in ancient warfare take the initiatives. In the same way, schools should achieve breakthrough development in the construction of “double first-class” and should succeed with extraordinary force. First, we must adhere to the road of university development and adhere to the “five to” concept of running a school. “Taking students as the root, educating people as the basis, academics as the soul, scholars as the mainstay, and responsibility as the most important element” is the value of the school’s pursuit for career development. The second is to seek the “odd” of discipline construction. “Disciplinary construction is not only a basic problem in higher education, but also the most complicated and comprehensive problem among all colleges and universities. It can be said that all problems in higher education are closely related to this issue.” (Luo, 2002) The discipline is the most basic element of the university. The discipline is not only a platform for scientific research, but also a platform for talent training, team building, and resource allocation for running schools. The “Overall Plan to Promote the Construction of World-Class Universities and First-Class Disciplines” clearly states that “They are based on disciplines. The disciplines guide and support higher education institutions to optimize the discipline structure, consolidate the direction of discipline development, highlight discipline construction priorities, and innovate discipline organization models to create more multi-disciplinary peaks, drive schools to take advantage of their strengths, and create special features.”

Northwestern Polytechnical University in the “double first-class” construction is guided by scientific development, with the needs of the country as the traction

to adjust the direction of disciplines, strengthen the construction of national defense disciplines; increase discipline integration, focus on the advantages, find breakthroughs, strengthen the strong areas; adjust disciplines structure, optimize the layout of the discipline, form a more conspicuous discipline system with more prominent features. The school adheres to the principle of “taking first-class as the goal, taking discipline as the foundation, taking performance as the lever, and taking reform as the driving force”, aiming at the forefront of international disciplines, focusing on the major needs of the country, and improving the discipline level as the main line in accordance with the “strong base, solid foundation and cultivate the best” to build a distinctive disciplinary system of coordinated development of “engineering, science, literature and medicine” that is compatible with the goals of world-class universities. Continue to consolidate the dominant position of the engineering sciences such as aerospace, materials, weapons, etc., and continuously improve the competitiveness that services the “three aviation” field and the defense science and technology industry. During the “Thirteenth Five-Year Plan” period, the discipline structure will be further optimized, the advantages of featured disciplines will continue to be highlighted, the basic disciplines will be continuously strengthened, and emerging interdisciplinary disciplines will continue to emerge. The school is guided by the construction of first-class disciplines, focusing on improving the ability of scientific and technological innovation, cultivating first-class talents, producing first-class achievements, and helping to build a world-class university with Chinese characteristics.

Time changes and rejuvenation in education and a powerful nation are inherited from generations. The Northwestern Polytechnical University adheres to the excellent school-running tradition of “rooting the west, dedicating itself to national defense and pursuing

excellence” from the Northwest Associated University of China, and continues to carry forward the glory. The school spirit of “fair, honest, brave and determined” and the “three realities and one new” school spirit highlight the spirit of the Northwestern Polytechnical University. Songs will continue to be sang after 80 years, and we are going to a new era!

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