**Introduction of Zhengzhou University**

1. **郑州大学简介 Zhengzhou University（“ZZU”）**

Run by the People’s Government of Henan Province, Zhengzhou University (ZZU), located at No.100, Kexuedadao Road, Zhengzhou City, Henan，boasts of a total area of about 939 acres and four campuses: Main Campus (No.100, Kexuedadao Road, Zhengzhou City), South Campus (No.75, Daxuebeilu Road, Zhengzhou City), North Campus (No. 97, Wenhua Road, Zhengzhou City), and East Campus (No. 40, Daxuebeilu Road, Zhengzhou City).

Targeting the whole China for admission, ZZU embraces a wide range of enrollment of over 50,000 full-time undergraduates, over 22,000 full-time postgraduates of all kinds and some 2,500 international students from more than 116 countries and regions. ZZU is on the list of National “211 Project” of key construction universities, and of “One Province, One University” of National Key Support Construction Universities, as well as of co-construction universities by Henan Province and Ministry of Education. In September of 2017, ZZU entered the construction sequence of National World First-class Universities. Standing at this new historic starting line, ZZU decided its location of running school to be comprehensive & research-oriented, and laid down a three-step development strategy, striving to build a world first-class comprehensive research-oriented university by the middle of this century.

Now ZZU boasts of National Engineering Researching Center for Advanced Polymer Processing Technology, National Engineering Laboratory for Internet Medical Care, National Research and Promotion Center for Calcium Magnesium Phosphate Compound Fertilizer Technology, National and local Joint Engineering Laboratory for Major Infrastructure Detection and Repairing technology, National Research Center for Drug Safety Evaluation, Collaborative Innovation for National Territorial Sovereignty and Maritime Rights and Interests (Collaborative Unit); 2 National Bases for Medicine Clinical Research, 1 National Training Base for Intellectual Property, 6 key laboratories, engineering research centers and key research bases for the humanities and social sciences sponsored by the Ministry of Education, 7 provincial collaborative innovation centers of materials, resources and other subjects. Besides, several school-level research institutes directly under School authority have also been established, such as the ZZU Academy of Medical Sciences, ZZU Institute of Pharmacology, Henan Provincial Industrial Technology Research Institute of Materials and Resources, Industrial Technology Research Institute of ZZU, Modern Analysis and Calculation Center of ZZU and so on.

In recent five years, ZZU has undertaken 78 projects, like the National Key Special Projects, National Program 973, Project 863, Project supported by the National Key Technology Research and Development Program etc. With integrative development, ZZU fulfils its layout as a comprehensive university. It boasts of 12 major disciplines: philosophy, economics, law, management science, and arts, reaching a balanced development of all the disciplines; and 6 national key (being cultivated) disciplines: the condensed matter physics, material processing engineering, history of ancient China, organic chemistry, chemical technology, pathology and pathophysiology; Besides, 8 disciplines (or fields) rank top 1% in ESI ranking across the globe, and chemistry, clinical medicine rank top 3‰ globally. ZZU’s ESI academic institution ranking is the 461th across the globe, the 34th among all Chinese universities. There are 30 doctoral programs of first-level disciplines, 3 doctoral programs of independent second-level disciplines, 59 master programs of first-level disciplines, 1 granting unit of doctorate professional degree, 32 granting units of professional master degree, and 30 post-doctoral exchange centers as well.

1. **双一流学科Double first-class disciplines**

Zhengzhou University was included in the national scheme of “the Development of World-Class Universities and World-Class Disciplines” and Chemistry, Material Science and Engineering, and Clinical Medical were included as “World-Class Disciplines”. Meanwhile, ZZU has acquired over 1184 projects of the National Natural Science Foundation and the National Social Science Foundation.

1. **合作意向与规模 Cooperation intention**
2. Promoting medium to long-term exchange and visiting study programs, including credit program and graduation projects.
3. Faculty exchange
4. Research cooperation
5. Double degree programs including Bachelor’s Degree and Master’s Degree
6. Collaborative doctoral degree program
7. **主推学科The areas ZZU is focusing on promoting international cooperation**
8. **Major of chemistry:**

The College of Chemistry of Zhengzhou University, founded in 1956, is one of the first three departments established by the former Zhengzhou University. At present, the college has 226 faculty members, with 190 full-time teachers, including 114 professors and associate professors. There are 176 teachers with doctoral degree and 2 academicians of Chinese Academy of Sciences. Among them, academician Wu Yangjie is the first “local” academician trained in Henan Province, and there are also more than 20 high-level talents such as National Science Fund for Distinguished Young Scholars, Changjiang scholars, Excellent Young Scientists Fund and Youth Changjiang, etc.; one member of the National Teaching Steering Committee of Chemistry. The college has undergraduate majors in chemistry and applied chemistry, a master’s degree and a doctoral degree in chemistry, and a postdoctoral station in chemistry. At the same time, there are four second-level doctoral programs in applied chemistry, industrial catalysis, medicinal chemistry and chemical biology, and seven second-level master’s programs in applied chemistry, industrial catalysis, medicinal chemistry, pharmaceutical analysis, chemical biology, environmental science and environmental engineering. The college has been approved as a national base for basic science research and teaching personnel training, a national chemistry experimental teaching demonstration center, and a national chemistry virtual simulation experimental teaching center successively. At the same time, it was also selected into the national first-class discipline (chemistry) and national first-class specialty (chemistry) construction sequence, the first batch of comprehensive reform pilot colleges (departments) of “holistic education, educate in the whole course and comprehensive education” in colleges and universities of the Ministry of education, the characteristic specialty construction points of national colleges and Universities, the pilot unit of professional comprehensive reform of national colleges and universities, the national teaching team “chemistry series course teaching team” and the national key teaching team (cultivation) disciplines (organic chemistry), national high-quality resource sharing courses, national bilingual teaching demonstration courses, national brand courses for studying in China, and national virtual simulation experiment teaching projects. This series of achievements provide strong support for undergraduate experimental teaching, scientific research training and innovative talent cultivation. In addition, the college has national and provincial scientific research platforms such as the discipline innovation and wisdom base of higher education (111 wisdom base), provincial key laboratories, provincial engineering technology research centers, provincial international joint laboratories, etc. With the existing laboratory area of nearly 30,000 square meters, the college has built a large instrument service sharing platform with a total equipment value of 150 million yuan. In the past three years, more than 150 national projects, provincial and ministerial projects and enterprise transversal projects have been approved, with an arrival fund of 130 million yuan; more than 1,300 scientific research papers have been published in academic journals at home and abroad, 100 invention patents have been authorized; and three national natural science second-class awards and provincial and ministerial first-class awards have been awarded.

1. **Distinctive cultivation characteristics.**

On the basis of professional education of “basic knowledge, basic skills and basic methods”, the college implements the plan of cultivating top talents in basic disciplines, promotes bilingual teaching, innovation and entrepreneurship education of college students, construction of high-quality model courses and online open courses, and encourages students to participate in provincial and national academic competitions to improve their overall quality. With the establishment of the “National Science Base Class”, “Lu Jiaxi Chemistry Elite Class” and “Top Talent Class”, the college implements the personalized talent cultivation model of “simultaneous development of six learning methods” (the ideological leadership system of party building with group building, the dual mentoring system of inspiration and professionalism, the system of domestic and international study visits, the system of scientific research training, the rolling system of base classes, and the system of comprehensive quality defense for the graduation class), and is committed to cultivating innovative chemical talents with international vision and local sentiment.

1. **Collaborative training of science and education.**

Through the joint establishment of the “Lu Jiaxi Chemistry Elite Class” with five research institutes, including Dalian Institute of Chemical Engineering, Beijing Institute of Chemistry, Changchun Institute of Applied Chemistry, Beijing Institute of Physics and Chemistry, and Chengdu Institute of Organic Science of Chinese Academy of Sciences, the School is committed to exploring the innovative mode of fostering high-level talents through the integration of science and education, and cultivating outstanding chemists with solid theoretical foundation, broad subject knowledge and strong innovative ability.

1. **Diverse international exchanges.**

The college has always maintained close cooperation with many international outstanding institutions such as the United States, France, Russia, etc., and sincerely invites famous scholars from abroad to lecture at the college; relying on the special support of “Double Thousand Plan” and “First-class Discipline Construction”, the college encourages subsidized undergraduates to go to relevant institutions abroad to exchange and study, so as to develop international vision.

**II.** **Major of materials science and engineering**

The major of Materials Science and Engineering of Zhengzhou University, with a history of nearly 60 years, is not only a national specialty, but also one of the first majors to pass the professional certification of engineering education after China’s accession to the Washington Agreement, and was successfully selected as one of the first national first-class undergraduate specialty construction points in 2019. In addition, the discipline of “Materials Science and Engineering”, on which it is based, has been selected as one of the superior characteristic disciplines of Henan Province (Class A), one of the key disciplines of national “211” and one of the world’s first-class disciplines (“double first-class”). There are two specialties: “Metallic Materials and Forming and Processing” and “Inorganic Non-metallic Materials”. With advanced metallic materials, special ceramic materials and refractory materials as its specialties, the major is dedicated to cultivating senior research and engineering talents who are engaged in research, development, production and management of metallic and inorganic non-metallic materials science and engineering and related fields.

Other parallel majors of the college include packaging engineering, materials chemistry, polymer materials and engineering, and materials science and engineering (internationalization class)

**III. Major of medicine**

The medical education of Zhengzhou University, which originated from Henan Sun Yat-sen University in 1928, started the first medical higher education in Henan. In 1952, Henan Medical College was established independently, and the college was moved to Zhengzhou in 1958, renamed Henan Medical University in 1984, and merged with the former Zhengzhou University and Zhengzhou University of Technology to form the new Zhengzhou University in July 2000.

The teaching faculties cover College of Medicine, College of Basic Medicine, College of Clinical Medicine (Clinical Medicine, Anesthesiology, Medical Imaging, Medical Imaging Technology), College of Dentistry, College of Nursing and Health, Department of Medical Laboratory, Department of Pediatric Medicine, Department of Rehabilitation Medicine, Clinical Skills Center, Basic and Clinical Laboratory Teaching Platform, College of Public Health, Institute of Drug Research, College of Pharmacy, etc.; the research platforms include Center for Translational Medicine, Center for Experimental Animal Models, State Key Laboratory of Esophageal Cancer Prevention and Control of College of Medicine, Henan (Zhengzhou University) Institute of Medicine, Laboratory Animal Center, Basic Medical Research Center, etc.

At present, there are 10 majors in basic medicine, clinical medicine, pediatrics, dentistry, nursing, medical laboratory technology, medical imaging, anesthesiology, rehabilitation therapy, medical imaging technology, among which there are 3 first-level discipline doctoral programs in basic medicine, clinical medicine and nursing, and 3 post-doctoral research stations in clinical medicine with doctoral degree program, 6 first-level discipline master’s degree programs, 3 master’s degree programs and 3 post-doctoral research stations.

Clinical medicine, as a national first-class construction discipline, is in the top 1% of the global ESI ranking with pharmacology and toxicology, biology and biochemistry discipline, molecular biology and genetics, and neuroscience and behavior. Among them, clinical medicine ESI ranking is in the top 1.65‰ worldwide. The university has national research platforms such as the State Key Laboratory of Esophageal Cancer Prevention and Treatment, the National Engineering Laboratory of Internet Medical System and Application, the National Telemedicine Center, the National Clinical Research Base of Drugs, the International Joint Research Center of Cell and Gene Therapy and Cancer Chemoprevention, etc., jointly established by the Ministry and the province. The past 5 years saw that the medical discipline has undertaken 543 national scientific research projects, 2728 provincial and ministerial level; won 437 scientific and technological awards above the provincial level, including 1 national scientific and technological achievements second prize; obtained 477 authorized patents, including 46 invention patents. In addition, many academic papers have been published in high-level journals such as *Nature*, *Nature Communications*, *Gut* and *Jama*.

It has a team of talents with high level and reasonable structure in teaching, medical and scientific research, including 1387 senior professionals and technicians.There are 2 academicians, 19 specially appointed academicians, 2 Changjiang scholars, 5 national distinguished young people, 9 national “Hundred-Thousand-Ten Thousand Project” candidates, 3 Zhongyuan scholars, 58 experts receiving special allowances from the State Council, and 19 experts receiving allowances from the Henan government.

With distinctive international characteristics, Academy of medical sciences was approved as the first batch of national “internationalization demonstration colleges” of local universities, and its president Lemonick was elected as a foreign academician of the Chinese Academy of Engineering. The College of Basic Medicine, as a demonstration unit of internationalization of education in Henan Province, has sent several batches of medical undergraduate students to the United States for short-term visits in recent years, and has established cooperation and exchange relationships with universities, research institutes, medical schools and hospitals in the United States, the United Kingdom, Germany, Japan, Sweden, Norway, Denmark, Australia, Taiwan and other countries and regions, respectively. In the past five years, more than 150 teachers have gone to Medical School of Harvard University in the United States, University of York in Canada, and the University of Chicago for training, and more than 200 overseas students in clinical medicine are accepted each year, with a total of 1,084 international students.

The 11 affiliated hospitals include: the First Affiliated Hospital, the Second Affiliated Hospital, the Third Affiliated Hospital, the Fifth Affiliated Hospital, the People’s Hospital, the Affiliated Children’s Hospital, the Fuwai Hospital, the Affiliated Cancer Hospital, the Affiliated Zhengzhou Central Hospital, the Affiliated Luoyang Central Hospital, and the Affiliated Xinyang Hospital. Among these 11 affiliated hospitals, the number of open beds is more than 30,000, the annual outpatient volume exceeds 20 million (times), and there are 36 national clinical key specialties and 139 provincial medical key (cultivation) disciplines. Six hospitals have been selected as the national project of upgrading the level of diagnosis and treatment of difficult diseases and the creation of national regional medical center, and are the main clinical bases for training medical innovative talents and high-end talents in Henan Province, playing an important leading and demonstration role.

**IV. Major of Marxist Theory**

Based on the principle of “profound foundation, wide scope, high quality and strong ability”, the Marxist Theory major is committed to cultivating talents with firm Marxist beliefs, solid and comprehensive Marxist theoretical background, and systematic mastery of Marxist scientific research methods. In the undergraduate curriculum, four major areas of professional education, interdisciplinary professional education, practical education and general education are set up, and a comprehensive “one-to-one” academic supervisor system is in place; every year, students are organized to conduct professional research, practical training and other colorful social practice activities.

The main disciplines include Marxist theory, political science, education, ethics, and Marxist philosophy; the main courses include introduction to classic works of Marxism, history of Marxist development, Marxist philosophy, Marxist political economy, scientific socialism, Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, history and construction of the Party, principles of ideological and political education, and ideological and political education methodology. Regarding the academic term of the program, it is set at 4 years, with flexible years of study of 3-6 years, and students who meet the regulations of Zhengzhou University for awarding bachelor’s degree will be awarded the LLB degree.

**V. Major of archaeology**

Archaeology, which was established in 1976, is one of the earlier archaeology majors established in colleges and universities in China. Since 1988, the major began to recruit master’s students, and was granted a master’s degree in archaeology and museology in 1993 and a doctoral degree in archaeology and museology in 2003; in 2011, archaeology was approved as a first-level discipline doctoral program, and in the same year, it was approved as a specialty of Henan Province; in 2012, it was approved to establish a postdoctoral research station in archaeology. At present, there are 33 full-time faculty members in the Department of Archaeology, who come from more than ten universities at home and abroad. Among this faculty, there are 8 doctoral supervisors, 2 members of the academic department of the Chinese Academy of Social Sciences, 29 people with doctoral degrees, and 11 people with overseas experience. In addition, more than 20 experts from outside the university have been hired as part-time teachers and postgraduate supervisors.

The Department of Archaeology, which is now a key discipline in Henan Province, is not only the first batch of advantageous and characteristic disciplines in Henan Province, but also the main support discipline of the “History and Culture of central Plains” discipline group of Zhengzhou University. With more prominent advantages and characteristics in the fields of prehistory of the Central Plains, the archaeology of the Xia, Shang and Zhou, the archaeology of the Qin, Han, Song and Yuan Dynasties, field archaeology, and scientific and technological archaeology, the discipline of archaeology has now built a scientific and technological archaeology laboratory, a GIS laboratory, a cultural relics showroom, a cultural relics sorting room, a library, a field archaeology practice base and several innovative practice bases for graduate students, with more teaching and research platforms and complete facilities. At present, the history practice education base of Zhengzhou University - Xi’an Institute of Cultural Relics Protection and Archaeology is a national off-campus practice education base for college students.

The major in Archaeology is dedicated to cultivating senior professionals with basic knowledge, basic skills and development potential in archaeology and museology, as well as those who can engage in scientific research, teaching and management in cultural relics and archaeology, museums, and cultural departments and enterprises and institutions. The curriculum of the major courses includes introduction to archaeology, archaeology from prehistory to Sui-Tang-Song-Yuan period, introduction to world archaeology, field archaeology, scientific and technological archaeology, museum studies, introduction to cultural heritage, paleography, historical literature, and field archaeology practice. Students are required to attend a semester-long field archaeology internship, and there are courses in archaeological mapping, archaeological mapping and GIS, environmental archaeology, physical anthropology, plant and animal archaeology, and other practical courses. The program is a four-year program, leading to a bachelor’s degree in history.

**VI. Major of Crop Biology**

The College of Life Sciences of Zhengzhou University, founded in March 2001, was initially called the Department of Biological Engineering of Zhengzhou University, and was renamed the College of Life Sciences of Zhengzhou University in May 2013 (hereinafter referred to as “the college”). At present, there are 100 faculty members, including 79 full-time teachers, 20 professors and 33 associate professors among them; 77 teachers with doctoral degree; 29 teachers with overseas experience; 16 doctoral supervisors and 55 master supervisors. The college has 3 undergraduate teaching departments, namely, Biotechnology, Bioengineering and Bio-informatics. There are one comprehensive experimental center, including the Biology Experimental Teaching Demonstration Center, SPF Experimental Animal Center and Research Experiment Center in Henan Province, and five research institutes, namely the Institute of Stem Cell and Conversion Applications, the Institute of Biochemistry and Bio-pharmaceuticals, the Institute of Molecular Immunology and Antibody Engineering, the Institute of Biodiversity, and the Institute of Bio-informatics and Tumor Immunity. At present, the college boasts one undergraduate major in Henan Province with comprehensive reform, one provincial quality course, one provincial bilingual teaching demonstration course and one provincial teaching team.

The college has Doctoral Degree Programs in Biology, Master’s Degree Programs in Biology and Master’s Degree Programs in Bioengineering. Biology, as a key discipline in Henan Province, was selected as one of the first batch of advantageous and characteristic disciplines in Henan Province. At present, there are 793 undergraduate students, 604 postgraduate students, including 13 international students, and 66 doctoral students. It has scientific research platforms such as Henan Provincial Key Laboratory of Functional Biomolecules, Henan Provincial International Joint Laboratory of Protein and Peptide Drugs, Henan Provincial Laboratory of Stem Cell Medical Research and Transformation Engineering, Henan Provincial Key Laboratory of Immunobiology, Zhengzhou Key Laboratory of Biological Resources Development and Application and New Drug Creation, etc. as well as 5 innovative science and technology teams in Henan Province.

**Introduction of College of Agriculture**

The College of Agriculture of Zhengzhou University, established in July 2018, was jointly built by Zhengzhou University and the Institute of Cotton Research of the Chinese Academy of Agricultural Sciences, and is an officially established secondary teaching and research unit of Zhengzhou University. Positioned as a trinity of discipline construction, scientific research and postgraduate training, the College of Agriculture aims to focus on the national strategy of food, cotton and oil security and the scientific and technological needs of Henan, a large agricultural province, mainly to carry out scientific research on basic agricultural theories and key technologies and the training of high-level personnel. Relying on the State Key Laboratory of Cotton Biology, the State Engineering Laboratory of Cotton Institute, the Key Laboratory of Functional Biomolecules of Henan Province and the Key Laboratory of Ion Beam Bioengineering of Henan Province of Zhengzhou University, the College of Agriculture has been carrying out in-depth research work on basic theories, applied basic theories and important key technologies of cotton, wheat, oil seed rape and other major crops in the discipline of “Green and Efficient Agriculture” of Zhengzhou University. At present, the College of Agriculture has more than 60 faculty members, including more than 50 professors (researchers), associate professors (associate researchers) and other senior professional and technical personnel; and has Master’s Degree Programs in Crop Science, Biology (Biochemistry and Molecular Biology), Biological Engineering and Doctoral Degree Programs in Biology, as well as more than 170 master’s and doctoral students are enrolled.

**VII.** **Major of water engineering**

(I) Major of water conservancy and hydro-power engineering

Founded in 1959, the major of water conservancy and hydro-power engineering of Zhengzhou University was approved as the first batch of famous brand majors in Henan Province in 2005, approved as a national specialty construction point in 2007, and selected as a national first-class undergraduate major in 2019. With the goal of harmonious and sustainable development of human society, the major of water conservancy and hydro-power engineering is oriented towards the training of national economic infrastructure and basic industries, and is dedicated to training senior engineers and managers who can solve the problems of energy crisis, flooding, water scarcity and other problems in urban construction, transportation development and other related infrastructure fields faced by the development of human society. The main courses include mechanics of materials, structural mechanics, hydraulics, geotechnics, engineering hydrology, hydraulic reinforced concrete structures, water resources planning and utilization, water conservancy construction, hydraulic buildings, hydropower stations, etc.

(II) Major of hydrology and water resources

The main research fields of hydrology and water resources engineering include the formation, distribution and movement laws of water on earth, water and drought disaster prevention and control, rational development and utilization of water resources, water environmental protection, basic theory and technology and methods of water resources management, etc. In 2019, the major of hydrology and water resources engineering of Zhengzhou University was selected as the first-class undergraduate major in Henan Province. With hydrology, water resources science, water environment science, system science, management science and economics as theoretical support, and closely integrated with modern measurement technology, information technology and communication technology, the major is dedicated to providing scientific basis for important decisions on sustainable economic and social development. The main courses cover theoretical mechanics, engineering drawing, material mechanics, principles of hydrology, physical geography, hydraulics and river dynamics, water resources, hydrological forecasting, water environment chemistry, hydrological and hydraulic calculations, water resources utilization, etc.

(III) Major of water supply and drainage science and engineering

Water supply and drainage science and engineering, which is the main research content of the theory and technology related to water transportation, purification and water resources protection and utilization, is an important discipline closely related to the city and town construction business, industrial production, environmental protection and people’s life. The major is dedicated to training senior engineering talents engaged in water supply and drainage engineering planning, design, construction, operation, management, scientific research and teaching, serving in the fields of water resources utilization and protection, urban water supply and drainage, construction water supply and drainage, industrial water supply and drainage and urban water systems. The main courses include theoretical mechanics, material mechanics, hydraulics, water supply and drainage pipeline engineering, water supply engineering, drainage engineering, construction water supply and drainage engineering, water resources utilization and protection, environmental microbiology, water quality monitoring, pumps and pumping stations, water process equipment fundamentals, engineering instrumentation and control, etc.

(IV) Major of road, bridge and river crossing engineering

The major of road, bridge and river crossing engineering, which is aimed at the rapid development of China’s transportation infrastructure engineering construction and the actual needs of the management and maintenance of huge road network and underground rail transit construction, focuses on the maintenance and management of road and bridge, tunnel and underground engineering, covers the design, construction, supervision, consulting and other fields of professional training, highlighting the safety inspection, evaluation and maintenance of transportation infrastructure engineering. Major courses cover theoretical mechanics, material mechanics, structural mechanics, elastic mechanics, bridge and culvert hydrology, engineering geology, geotechnics, roadbed and pavement engineering, bridge engineering, tunnel engineering, engineering materials, traffic engineering, road survey and design, road construction and management, modern road inspection and maintenance technology, bridge inspection and reinforcement technology, etc.

**VIII. Major of chemical engineering and technology**

At present, the School of Chemical Engineering and Technology has three undergraduate majors, namely, Chemical Engineering and Technology, Pharmaceutical Engineering and Metallurgical Engineering. The school has Doctoral Degree Programs in Chemical Engineering and Technology (covering Chemical Engineering, Chemical Process, Applied Chemistry, Industrial Catalysis, Biochemical Engineering and Pharmaceutical Engineering), Master’s Degree Programs in Chemical Engineering and Technology and Metallurgical Engineering, and two engineering degree programs in Chemical Engineering, Metallurgical and Materials Engineering. Master’s Degree Programs. In addition, the school has established the “Comprehensive Utilization and Processing of Aluminum and Magnesium Resources” postgraduate education innovation training base in Henan Province. It has “Chemical Technology” as a national key discipline, “Green Catalysis” as a national first-class discipline construction direction, “Chemical Engineering and Technology” as a provincial key discipline, “Resource Processing and Efficient Utilization” as a provincial characteristic discipline, “Chemical Engineering and Technology” as a special professor posting discipline in Henan Province, and also has a postdoctoral research station of Chemical Engineering and Technology.

1. The major of chemical engineering and technology is a national first-class undergraduate major construction point, a national special major and a national comprehensive reform pilot major. The discipline of chemical engineering and technology is the first-level discipline, which is the key discipline at the provincial level and the advantageous and characteristic discipline in Henan Province. The second-level discipline of chemical engineering and technology is a national key discipline, and has Master and Doctoral Degree Programs and a postdoctoral station. In the 2015 China Chemical Engineering and Technology University Ranking, this major was ranked 10th. In terms of major curriculum, it covers advanced mathematics, university physics, inorganic chemistry, analytical chemistry, organic chemistry, physical chemistry, university English, chemical principles, chemical equipment design fundamentals, chemical thermodynamics, chemical reaction engineering and chemical process science.
2. In terms of the training objectives of pharmaceutical engineering, the major is committed to cultivating talents with a sense of social responsibility, professional ethics and humanistic qualities, who can work in pharmaceutical engineering and its related fields, especially pharmaceutical companies, drug research and development institutions and pharmaceutical equipment manufacturers, engaged in engineering research and development, product development and process design, production, management and other aspects of senior engineering talent. The relying disciplines of this major are chemistry, chemical engineering and technology, and pharmacy. The main basic and specialized courses are pharmaceutical process, pharmaceutical chemistry, industrial pharmacy, pharmaceutical analysis, pharmaceutical separation engineering, pharmaceutical reaction engineering, pharmaceutical engineering process design, pharmaceutical production quality management engineering, introduction to environmental and safety engineering, chemical principles, etc. The practical teaching includes cognitive internship, production internship, social practice, course design, experiments of basic courses, experiments of specialized courses, comprehensive design of specialized courses, graduation design (thesis), innovative practice, etc.
3. Metallurgical Engineering, which is oriented to the production and development needs of metallurgical, chemical and material industries, cultivates talents with solid engineering foundation and professional basic knowledge, good scientific literacy and knowledge of humanities and social sciences, and comprehensive development of moral, intellectual, physical and aesthetic talents; at the same time, such talents are capable of systematically mastering the knowledge and skills of non-ferrous metallurgy, iron and steel metallurgy, metallurgical physical chemistry and material metallurgy. They are composite senior professionals with both innovative ability and pragmatic spirit and sense of social responsibility, who can engage in engineering technology research and development, product development and technical design, production operation and management in metallurgy and related fields. Within the metallurgical engineering program, there are 25 high-level faculty members with academician Liu Jiongtian (mineral processing expert) and academician He Jilin (metallurgical and material expert) as the professional leaders, including 2 academicians of Chinese Academy of Engineering, 2 special professors of Changjiang Scholars, and 1 young teacher of Changjiang Scholars. 100% of the faculty members have doctoral degrees and are from famous mining and metallurgical colleges and universities in China.

**IX. Major of public administration**

(I) Administration and management

The major of Public Administration, as a national key discipline, holds the talent cultivation concept of clear political value orientation, strong public service consciousness, broad professional theoretical background, and skilled administrative management skills. The major is dedicated to cultivating talents with comprehensive development of morality, intellect, physique and aesthetics. These talents master modern administrative theories, methods and techniques, possess public consciousness, public spirit and public responsibility, and have the spirit of innovation, entrepreneurial consciousness and innovative entrepreneurial ability; they can adapt to the requirements of social development and engage in management or service work in party and government organs, enterprises and institutions, and social organizations as composite talents. In terms of the main curriculum, it includes administrative management, principles of political science, principles of management, constitutional law and administrative law, government economics, public policy, public organization, management psychology, human resource management, and comparative government system.

(II) Public service management

The major cultivates highly qualified applied talents who can adapt to the needs of public management and social development and systematically master the basic principles of management and the basic theories of public organization; such talents, who can master the basic knowledge of management, administration, political science, sociology and other professional knowledge, not only understand the current situation and basic trends in the development of modern management techniques, but also have strong English communication skills, and can engage in management work as well as scientific research in party and government organs, enterprises and institutions, and social organizations. In terms of the main curriculum, it sets up public utility management, administrative management, public organization, government performance management, management psychology, public economics, community management, public policy, and public utility management case studies.

(III) Major of social work

The major is dedicated to cultivating senior professionals with comprehensive development of moral, intellectual, physical, and aesthetic skills, broad knowledge of humanities and social sciences and professional concepts, theories and knowledge of social work; such talents, with more proficient social research skills and social work abilities, can engage in social security, social policy research, social administration, community development and management, social services, evaluation and operation in civil affairs, labor, social security and health departments, as well as social organizations such as labor unions, youth, women and other social welfare, service and public welfare groups. In terms of the main curriculum, the major has set up courses including introduction to sociology, introduction to social work, principles and methods of social survey, case social work, group social work, community social work, social psychology, social policy and regulations, women’s social work, youth social work, etc.

(IV) Major of human resource management

Aiming at enterprises, institutions and government departments, this major is dedicated to cultivating senior professionals who can adapt to the needs of the socialist market economy, develop morally, intellectually, physically and aesthetically, and understand the theory and practice of human resource management in China and abroad; these talents not only have the knowledge and ability of management, economics, law and human resource management, but also systematically master the basic theoretical knowledge and business skills of human resource management. With good dedication and professional ethics, they are able to engage in human resources management and related administrative work of applied senior professionals. In the main curriculum, the major has set up courses including management principles, introduction to human resources management, recruitment and deployment, personnel assessment theory and methods, human resources training and development, performance management, compensation management, job analysis and evaluation.

(V) Major of international politics

With the overall goal of “profound foundation, high quality, internationalization and strong ability”, the major aims to cultivate professionals with Marxist theory and the theory and knowledge of international politics and diplomacy, who not only have international vision, strategic thinking and good overall quality, but also have the ability of international negotiation and international communication. They can be competent to work in international organizations, foreign affairs departments, multinational corporations, foreign-related institutions, mass media, large state-owned enterprises and government-related departments engaged in strategic research, policy consulting, intelligence analysis, diplomatic and foreign affairs management international, composite high-quality professionals. In terms of the main curriculum, the major includes courses such as introduction to international politics, research methods in political science, principles of political science, history of international relations, contemporary world economy and politics, contemporary Chinese diplomacy, western international relations theory, international politics on the internet, and international political economy.

**X. Major of physics**

(I) Major of physics

Physics, which is one of the earliest majors established by the former Zhengzhou University, was founded in 1956 by Mr. Huo Bingquan, a famous physicist and pioneer of cosmic ray physics research in China. As the first batch of famous brand construction majors in Henan Province, national characteristic majors and national comprehensive reform pilot majors, the major of physics was selected as national first-class undergraduate majors in 2019; in addition, it is also a participating unit in the “Action Plan of Combining Science and Education and Collaborative Education” of the Ministry of Education and the Chinese Academy of Sciences, and runs the “Qian Sanqiang Class of Excellence” and “Shang Guang Elite Class” in physics. The major has strong disciplinary support platforms, such as the State Key Discipline of Condensed Matter Physics, the key disciplines of Physics and Nuclear Science and Technology in Henan Province, the first-level doctoral program in Physics, the postdoctoral station in physics, the first-level master’s program in physics, nuclear science and technology and optical engineering, the second-level master’s program in biophysics, materials physics and chemistry and physical electronics, as well as the National Experimental Teaching Demonstration Center in Physics and the Virtual Simulation Experiment Center in Physics in Henan Province. The major of physics has a high-level faculty including academicians of Chinese Academy of Sciences (1), Changjiang scholars (2), National Distinguished Young Scholars (1), etc. Among the professional teachers, there are 1 innovation team of Ministry of Education, 4 innovative science and technology teams of Henan Province, 2 science and technology innovation teams of Henan University, and 2 teaching teams of Henan University. In terms of professional curriculum, courses including advanced mathematics, linear algebra, probability statistics, mathematical physics methods, mechanics, thermodynamics, optics, electromagnetism, electrical engineering, atomic physics, atomic nuclear physics, theoretical mechanics, thermodynamics and statistical physics, electrodynamics, quantum mechanics, solid state physics, particle physics, computational physics, general physics experiments, modern physics experiments, etc. have been set up.

(II) Major of applied Physics

Relying on the strong disciplinary support platform such as the State Key Discipline of Condensed Matter Physics and the Key Laboratory of Materials Physics of the Ministry of Education, the Department of Applied Physics has the first-level doctoral program in physics, the postdoctoral station in physics, the second-level Doctoral Degree Programs in materials physics and chemistry, the first-level master’s program in physics, nuclear science and technology, optical engineering, the second-level master’s program in biophysics, materials physics and chemistry, physical electronics, the National Experimental Teaching Demonstration Center - Physics Experiment Center, and the Virtual Simulation Experiment Center of physics in Henan Province.With superior running conditions and strong faculty, the major insists on talent training as the core, professional construction as the foundation, and faculty construction as the root to achieve the scientific, rational and sustainable development of the major. The major of applied physics has a high-level faculty including academicians of Chinese Academy of Sciences, Changjiang scholars, National Distinguished Young Scholars, etc. Among the professional teachers, there are one innovation team of the Ministry of Education, four innovative science and technology teams of Henan Province, two science and technology innovation teams of Henan Province colleges and universities, and two teaching teams of Henan Province colleges and universities.

The major of applied physics, based on the goal of serving the local social development and economic construction, has carried out research work in several material-related directions such as superhard materials, semiconductor nano-physics and devices, metal physics and light alloy materials, metal and ceramic nano-powder technology, negative expansion material preparation and mechanism, material computational design and simulation, etc. It is committed to providing strong talents, intelligence and technical support for the construction of the Central Plains Economic Zone and the development of high-tech enterprises in Henan Province. In terms of the main curriculum, courses including advanced mathematics, linear algebra, probability statistics, mathematical physical methods, mechanics, thermodynamics, optics, electromagnetism, electronics, atomic physics, solid state physics, theoretical mechanics, thermodynamics and statistical physics, electrodynamics, quantum mechanics, physical chemistry, fundamentals of materials science, physical properties of materials, materials synthesis and preparation, general physics experiments, modern physics experiments, etc. Have been set up.

**XI. Major of music**

The School of Music of Zhengzhou University, founded in 2000, has three undergraduate majors in musicology, music performance and dance, and three teaching departments in instrumental music, vocal music, theory and dance, covering keyboard instruments, western instruments, folk instruments, vocal music, artistic dance, international standard dance and other professional directions. The first-level Master’s Degree Programs and Master’s Degree Programs in Music and Dance have been approved, among which Music and Dance is the eighth and ninth batch of key disciplines in Henan Province. Under the discipline, there are 12 instructors and 9 research directions. With its own independent and perfect teaching and research mechanism, it will cultivate music and dance creation and performance, theory research and other complex professional talents for the country and society. At present, the School of Music has research institutions such as the Chinese Shadow Teaching and Research Base, a base for the transmission of excellent Chinese culture by the Ministry of Education, the Institute of Music Archaeology of Zhengzhou University, the Shujian Opera Research Center of Zhengzhou University, and the Pengjiapeng Opera Creation and Research Center of Zhengzhou University; it has established a fully-structured symphony orchestra, a national orchestra, a choir, a dance troupe and an international standard dance troupe. As for professional settings, courses including music performance (including vocal and instrumental music) and musicology have been set up.

**XII. Physical Education College**

Physical Education College of Zhengzhou University (the main campus), formerly known as the Department of Physical Education of Zhengzhou University, was established in 1956, and the Department of Physical Education of Zhengzhou University was established in 2001 after the merger of the Department of Physical Education of Zhengzhou University of Technology (established in 1963) and Henan Medical University (established in 1952, formerly known as the Fifth National Sun Yat-sen University established in 1928). On September 30, 2015, its name was changed to “Physical Education College of Zhengzhou University (Main Campus)” with the approval of the university, and it has been used since then. At present, there are 120 faculty members, including 104 full-time teachers and 16 teaching assistants. Among the full-time teachers, there are 16 professors (15.4%), 39 associate professors (37.5%), 44 lecturers (42.3%), and 5 assistant professors (4.8%); 26 of them have doctoral degrees (25%), 54 have master’s degrees (51.9%), and 4 teachers are studying for doctoral degrees; there are 6 doctoral supervisors (including joint doctoral supervisors from foreign universities) and 40 master’s supervisors; among the teaching assistants, there are 3 lecturers, 5 senior workers, 7 lab technicians and 1 junior worker.

Physical Education College of Zhengzhou University has two undergraduate majors in physical education (a national first-class undergraduate major and a specialty of Henan Province) and social sports guidance and management (a first-class undergraduate major of Henan Province), as well as Master’s Degree Programs in physical education (physical education teaching, sports training, social sports guidance), a first-level master’s program in physical education (physical education and training, sports humanities and sociology, ethnic traditional sports and sports human science) and a second-level doctoral program (sports management science); it also has a master’s program in sports.

**XIII. Fine Arts**

(I) Introduction of the School

The School of Fine Arts of Zhengzhou University, founded in 2001, has the departments of Chinese painting, oil painting, sculpture, art design and history. At the same time, it has two first-level Master’s Degree Programs in Fine Arts and Master of Fine Arts, and three undergraduate programs in Painting, Sculpture and Visual Communication, covering five directions of Chinese painting, oil painting, sculpture, visual communication and animation. The School has nine research and practice centers, including the Central Plains Base of the National Higher School Art Teaching and Research Center and the Research Base for Cultural Industry Development of Henan Province. Among them, “ Arts in Central Plains”: was selected as the key construction project of Zhengzhou University’s school-level advantageous characteristic disciplines (directions), and “Art” was selected as the ninth batch of Henan Province’s first-level discipline key disciplines, with remarkable discipline construction results. All of this proves the remarkable success of the College’s academic development.