



# School of

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# MATERIAL SCIENCE & ENGINEERING

## THE SCHOOL

The School of Material Science and Engineering is one of the institutes of Jiangsu University, and its predecessor of the Zhenjiang Institute of Agricultural Machinery founded in 1972. In 1992, Department of Materials Engineering was founded and in 1999, it was renamed as School of Material Science and Engineering. It has an outstanding teaching team. At present, the school has 3 part-time Academicians of Chinese Academy of Engineering, 21 doctoral supervisors, 29 professors, including 1 winner of "China National Funds for Distinguished Young Scientists", 2 candidates of "One Thousand Talents Project (CCCPC)", 3 candidates of "Millions Talents Project". 35% of the faculty have oversea experience, 80% have PhD degree. The School has one post-doctoral research station for Material Science & Engineering, one doctoral program of primary discipline--Material Science and Engineering, five master programs and two professional master of engineering. The discipline of "Material Science and Engineering" of Jiangsu University was ranked the 41<sup>st</sup> in the newest Disciplinary Assessment of Chinese Ministry of Education in 2012. The School cultivated over 6000 undergraduate students, 612 master degree candidates, 59 doctoral candidates and 43 master degree candidates in engineering since 1972. One PhD student won the award of "100 National Excellent Doctoral Dissertations"; 12 masters and 6 doctors won the award of "Excellent Dissertations" of Jiangsu province. The School has 5 key labs, including Jiangsu Key Lab of High-end Structural Materials, Jiangsu Key Lab of Material Tribology, Key Lab of Metal-base Composite & Functional Material of Mechanical Industry, Jiangsu Key Lab of Photonic Manufacturing Science and Technology, Jiangsu Research Center of Aluminum-base Composite and Material Engineering & Technology.

## DEPARTMENTS

- Structural Materials
- Material Tribology
- Metal-base Composite
- Functional Material of Mechanical Industry



# MATERIAL SCIENCE & ENGINEERING

The School of Materials Science & Engineering offers graduate program to students pursuing master degree in materials science & engineering. The program aims at bringing about adequate practical training opportunities for engineering graduates and engineering students in sandwich courses to enable them to complete their training and to attain professional status.

## WHAT WILL I LEARN?

The Master's program offered by the School of Materials Science and Engineering (MSE) aims to help the students to gain knowledge and skills in a selected materials science and engineering field that matches their interest, and to build solid foundation for a successful career as professional material engineers or pursuing higher academic degree program. In this program, the students will develop their analyzing, designing and experimental abilities through course work, laboratory activities, project studies, and independent researches.

## HOW WILL THIS COURSE ENHANCE MY CAREER PROSPECTS?

A master degree in materials science and engineering can cut across a variety of academic paths, combining subjects such as materials science, chemistry, engineering, biology and so on. Students can tailor materials science and engineering majors to careers in materials manufacture, architecture building, automobile making and many other areas. Materials science and engineering graduates go on to work for large firms in industries covering shipping, automobile, navigation, wind power, steel, semiconductor, electronic etc.

## WHY CHOOSE TO STUDY THIS PROGRAM IN JSU:

Department of Materials Science and Engineering encompasses programs in the practical and theoretical aspects of materials, their utilization, and their electronic, physical, mechanical, and chemical properties in relation to their structure. Within this broad framework, students will focus research on one or more narrowly defined questions. This focus constitutes the major field.

## CORE COURSES

Materials: physics and chemistry, Laser micro machine and engineering application, Photons and Photoelectric Information Functional Material, Micro Nano material and device fabrication, Surface design and preparation of bionics function materials, Materials science, etc.

Materials processing engineering: Preparation and processing technics of advanced composites, Forming and processing technology of advanced materials, Advanced interconnection techniques, Laser processing, Tool and Die Technology.

# Masters in MATERIAL SCIENCE

Program Duration: 3 Years

Intake: March & September

Tuition: 24000 CNY/Year

Department:

School of Material Science & Engineering

Scholarships:

20,000 CNY (Presidential)

## RESEARCH DIRECTIONS

1. Materials physics and chemistry
2. Materials science
3. Materials processing engineering technology
4. Energy materials

# PhD in MATERIAL SCIENCE

Program Duration: 3 Years

Intake: March & September

Tuition: 24000 CNY/Year

Department:

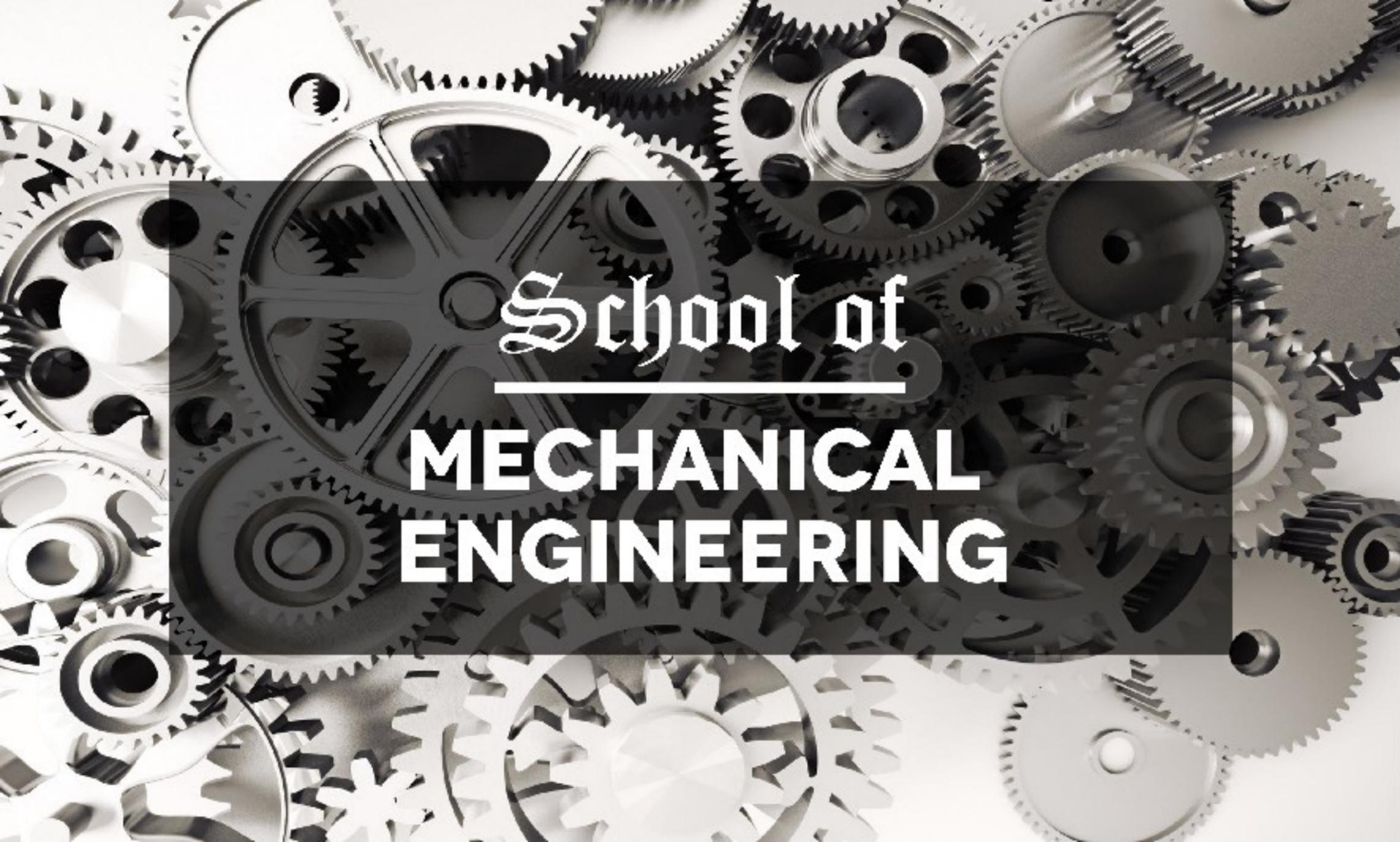
School of Material Science & Engineering

Scholarships:

28,000 CNY including Accommodation (Presidential)

## RESEARCH DIRECTIONS

1. Design and Preparation of Advanced Metal Structural Materials
2. Preparation and Processing Control of Advanced Materials
3. Multifunctional Design and Optimization of Inorganic Nonmetallic Materials
4. Biomaterials and Energy Materials
5. Biomimetic Polymer Science



# School of **MECHANICAL ENGINEERING**

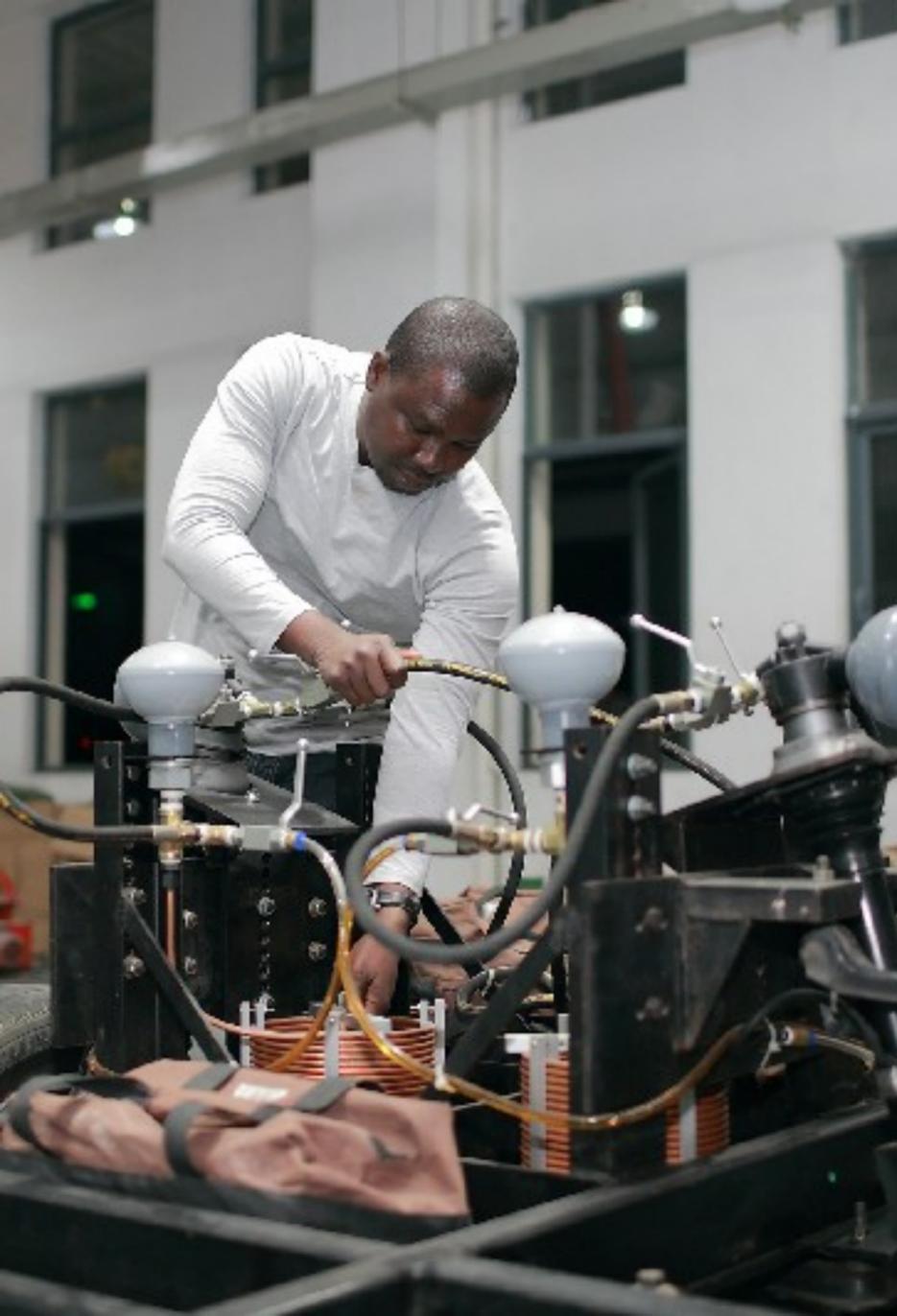
## THE SCHOOL

School of Mechanical Engineering (SME) is one of the oldest and strongest schools of Jiangsu University. The school offers more than 10 degree programs and has 4 undergraduate majors which are Mechanical Designing and Manufacturing Automation, Mechatronic Engineering, Measurement and Control Technology and Instrument, Optoelectronic Information Science and Engineering. SME has the first level doctoral degree discipline authorization and post-doctorate research station in Mechanical Engineering. In addition, SMF has three second level doctoral degree discipline authorization in Mechanical Manufacturing and Automation, Mechanical Design and Theory, Mechatronic Engineering, and six master's degree discipline authorization in Mechanical Manufacturing and Automation, Mechatronic Engineering, Mechanical Design and Theory, Measurement Technology and Instrument, Precision Instrument and Machinery, Optical Engineering, and three engineering master's discipline authorization in Mechanical Engineering, Instrument Engineering, Optical Engineering. Among them, Mechanical Manufacturing and Automation is the cultivating National Key Discipline and Mechanical Engineering is cultivating by Jiangsu Province to be a National Key Discipline. Mechanical Designing and Manufacturing Automation is the cultivating National Distinctive Program and Brand Program of Jiangsu Province. Mechatronic Engineering, Detection and Control Technologies and Instruments are the Distinctive Programs of Jiangsu Province. Now SMF has more than 170 staff including more than 40 professors (more than 20 Ph.D. supervisors) and more than 50 associate professors. More than 90 percent of the staff have master's or doctor's degree. There are more than 1500 full-time undergraduate students, and more than 600 graduate students. SME has established cooperative relationships in teaching and research with universities from United States, Japan, Germany, Canada and other countries, including University of Manchester, Florida State University, Northern Illinois University, Purdue University, Wilfrid Laurier University.

## DEPARTMENTS



- Machinery Manufacturing Engineering
- Mechanical Design Engineering
- Mechanical and Electronic Engineering
- Measurement Technology and Instrumentation
- Optical Information Science & Technology



# MECHANICAL ENGINEERING

This program, which mainly covers the research areas in Mechanical Manufacturing and Automation, Mechatronic Engineering, Mechanical Design and Theory, and Vehicle Engineering, etc. Mechanical Manufacturing and Automation is the cultivating National Key Discipline and Mechanical Engineering is cultivating by Jiangsu Province to be a National Key Discipline. Mechanical Designing and Manufacturing Automation is the cultivating National Distinctive Program and Brand Program of Jiangsu Province.

## WHAT WILL I LEARN?

Strengthen their professional knowledge and research ability in the area of mechanical engineering. Know the latest advances and future trend/development in the field of mechanical engineering. Carry out high-quality research work under the supervision of the knowledgeable master supervisors in mechanical engineering. Have a certain innovation ability for science and technology. Have good personalities, rigorous style of study, strong creative aspiration, and strong ability for collaboration and career development, etc.

## HOW WILL THIS COURSE ENHANCE MY CAREER PROSPECTS?

This program will provide the professional knowledge and skills in the fields of Mechanical design and manufacturing and automotive. It will also give the ability of solving problems and the positive attitude in career. The classmates and teachers will give you good help if you have some problems in your career.

## WHY CHOOSE TO STUDY THIS PROGRAM IN JSU:

This program of JSU is famous all-around of China. It is one of the best programs in JSU. We have excellent teachers, SME has more than 170 staff including more than 40 professors (more than 20 Ph.D. supervisors) and more than 50 associate professors. What's more, SME has many laboratories opened to teachers and students, which provides service of experiments, practice, engineering training. SME has established cooperative relationships in teaching and research with universities from United States, Japan, Germany, Canada and other countries, including University of Manchester, Florida State University, Northern Illinois University, Purdue University, Wilfrid Laurier University. It can broaden the international eyes.

## CORE COURSES

Measurement Technology Based on Machine Vision  
Non-destructive Testing Technology  
Multi-sensor Information Fusion Technology  
Virtual Instrument Technology and Applications  
Wireless Microcontroller Network Technology  
Research Directions

# Masters in MECHANICAL ENGINEERING

Program Duration: 3 Years

Intake: March & September

Tuition: 20000 CNY/Year

Department:

School of Mechanical Engineering

Scholarships:

20,000 CNY (Presidential)

1,500 - 2,500 CNY (Schooling)

## RESEARCH DIRECTIONS

Mechanical Manufacturing and Automation

Mechatronic Engineering

Mechanical Design and Theory

Vehicle Engineering

# PhD in MECHANICAL ENGINEERING

Program Duration: 3 Years

Intake: March & September

Tuition: 28000 CNY/Year

Department:

School of Mechanical Engineering

Scholarships:

28,000 CNY including accommodation(Presidential)

2,500 - 3,500 CNY (Schooling)

## RESEARCH DIRECTIONS

Mechanical Manufacturing and Automation

Mechatronic Engineering

Mechanical Design and Theory

Vehicle Engineering



# Masters in INSTRUMENTAL SCIENCE

Instrument Science and Technology is related to the national economy, scientific research and every aspects of people's daily life, is a comprehensive engineering field that provides facilities, equipment and technologies for detecting, measuring, supervising and controlling various physical phenomena, as well as important technical guarantee for human society. Instrument Science and Technology involves precision machinery, electronics technology, optoelectronic technology, and computer technology.

## RESEARCH DIRECTIONS

Students on the Instrument Science and Technology Masters Program can specialise in:

- Precision instrument and machinery
- Measuring and testing technologies and instruments

Program Duration: 3 Years

Intake: March & September

Tuition: 20000 CNY/Year

Department:

School of Mechanical Engineering

Scholarships:

20,000 CNY (Presidential)

1,500 - 2,500 CNY (Schooling)

## HOW WILL THIS COURSE ENHANCE MY CAREER PROSPECTS?

If you're a graduate with Master of Science in Instrument Science and Technology, you can work as a manager, executive or venture capitalist. You can also work in a research or development role for an instrumentation manufacturer.

You can also continue your study in a Ph.D. program. You can work as a consultant or qualify for research, design and product development positions that address the following: Sensory equipment , Computing, Image science , Optics and Control systems

## WHY CHOOSE TO STUDY THIS PROGRAM IN JSU:

Department of Materials Science and Engineering encompasses programs in the practical and theoretical aspects of materials, their utilization, and their electronic, physical, mechanical, and chemical properties in relation to their structure. Within this broad framework, students will focus research on one or more narrowly defined questions. This focus constitutes the major field.

## CORE COURSES

- Navigation, Positioning, Measurement and Control
- Micro-Instruments and Micro-Electromechanical System
- Measurement & Control Technology and Intelligent System
- Measurement & Control of Automobile and Mechatronics
- Simulation of Moving Carrier and virtual reality Technology
- Wireless Sensor Network and Internet of Things Technology



# Masters in OPTICAL ENGINEERING

The discipline has 14 full-time teachers, 5 professors, 6 associate professors, 3 lecturers, among them, 2 doctoral supervisors, and 11 master trainers. In addition there are 6 part-time teachers (including 4 professors, 2 associate professors). Jiangsu province has "333 project" training, six peak talents, colleges and universities in Jiangsu province "Blue Project" training, the National Excellent Doctoral Dissertation Award winner. The academic team members cross knowledge back Scene, stimulate the active academic thought, promote the development of the research direction.

## RESEARCH DIRECTIONS

- Modern optical devices and system design  
Modern optoelectronic testing technology and information processing  
Laser machining technology and application
1. Modern optical devices and system design
  2. Optical precision measurement and detection technology application
  3. Bio-optical information science and its detection technology
  4. Laser machining technology

## WHAT WILL I LEARN?

Professional knowledge and research ability in this area  
Know the latest advances and future trend/development in this field  
Have a certain innovation ability for science and technology;  
Be physically and mentally healthy;  
Have good personalities, rigorous style of study, strong creative aspiration, and strong ability for collaboration and career development, etc.

## HOW WILL THIS COURSE ENHANCE MY CAREER PROSPECTS?

This program will provide the professional knowledge and skills in the fields. It will also give the ability of solving problems and the positive attitude in career. The classmates and teachers will give you good help if you have some problems in your career.

Program Duration: 3 Years

Intake: March & September

Tuition: 20000 CNY/Year

Department:

School of Mechanical Engineering

Scholarships:

20,000 CNY (Presidential)

1,500 - 2,500 CNY (Schooling)

## CORE COURSES

- Applied optics  
Laser them Technology  
Modern optics Experiments  
Modern optical testing technology  
Fourier optics  
Optical system Design  
Micro structure optical fiber and its application



# School of MEDICINE

## THE SCHOOL

School of Medicine of Jiangsu University consist five disciplines which can confer Master degrees. They are Clinical Laboratory Science, Immunology, Pathogenic Biology, Human Anatomy and Histology Embryology and Physiology. The discipline of Clinical Laboratory Science can also confer Doctoral degree.

The high-level education is the primary objective of our school. School of Medical Science and Laboratory Medicine has always sought to exhibit the highest standards of quality teaching and deliver the best learning opportunities to our students, aiming for the cultivation of innovative thoughts, scientific attitudes and practical ability in students. Both undergraduate and graduate students can easily find their job in hospitals or some research institutes after they have graduated from our school. Apart from normal teaching responsibilities, the school also pays attention to scientific research. The school recently acquires many grants from national and provincial nature science foundations. The scientific research in the school mainly focus on dendritic cells, stem cells, molecular mechanisms of cancer cells, thrombosis and hemostasis, pathogenic molecular biology and gene diagnosis, as well as signal transduction pathway etc.

In recent years, a lot of achievements both in education and research fields are got by the school. The discipline of Clinical Laboratory Science of the school has become the famous representative major in Jiangsu Province. The group of laboratory medicine becomes one of the most excellent groups within Jiangsu Province. Two major courses have been conformed as the first level of the whole education courses in the province, and another three courses as the second level of those. It has recently got more than 40 of National Natural Science Funds, and more than 40 research projects of Jiangsu Province. More than 400 papers are published on different journals at home and abroad, including 50 papers embodied by SCI.

## DEPARTMENTS

- Department of Hematology & Laboratory Hematology
- Department of Pharmacology
- Department of Pathology
- Department of Histology & Embryology
- Department of Preventative Medicine
- Department of Physiology



# Masters in BASIC MEDICINE

The Medical School of Jiangsu University (JU) has always sought to exhibit the highest teaching standards in order to deliver the best learning opportunities to our students, aiming for the cultivation of innovative thoughts, scientific attitudes and practical ability by students. Both undergraduate and graduate students can easily find jobs in hospitals or research institutes after graduating from JU.

## RESEARCH DIRECTIONS

There are five disciplines or research directives under Basic Medicine for Post Graduate studies at Jiangsu University namely: Clinical Laboratory Science, Immunology, Pathogenic Biology, Human Anatomy and Histology Embryology and Physiology. The discipline of Clinical Laboratory Science can also confer Doctoral degree.

Program Duration: 3 Years

Intake: March & September

Tuition: 38000 CNY/Year

Department:

School of Medicine

Scholarships:

20,000 CNY (Presidential)

1,500 - 2,500 CNY (Schooling)

## WHY CHOOSE TO STUDY THIS PROGRAM IN JSU:

Jiangsu University School of Medicine is one of the best medical schools in China that trains medical students in English. Jiangsu University has an exceptional academic excellence that makes the school of medicine stands out in one of the top 10 medical colleges in China. The school has undertaken the development of medical studies into an important facet of its strategies for becoming a world-class university endowed with state-of-the arts equipment's.

## HOW WILL THIS COURSE ENHANCE MY CAREER PROSPECTS?

The University has nationally recognized strengths in several areas. It also enjoys extensive collaborative projects with other international Universities. Numerous opportunities for collaborative work with members of other departments as well as with various affiliated research organizations exist. Recent graduates of the program have been highly successful in academia, industrial, medical, and veterinary careers. The Department's equipment, much of which is shared, supports research ranging from molecular biology to clinical microbiology.

## CORE COURSES

Basic Neuroscience, Modern histology, Cellular and Molecular Immunology, Medical Statistics, Modern Medical Cell Biology, Engineering of Reproduction and Teratology, Clinical Immunology, Molecular Pharmacology, Advanced Pathophysiology



# Masters in CLINICAL MEDICINE

The Clinical Medicine Department of Jiangsu University (JU) Medical School has always sought to exhibit the highest teaching standards in order to deliver the best learning opportunities to our students, aiming for the cultivation of innovative thoughts, scientific attitudes and practical ability by students. Both undergraduate and graduate students can easily find jobs in hospitals or research institutes after graduating from JU.

## RESEARCH DIRECTIONS

Clinical Laboratory Science  
Immunology  
Pathogenic Biology  
Human Anatomy and Histology  
Embryology and Physiology  
The discipline of Clinical Laboratory Science can also confer Doctoral degree.

Program Duration: 3 Years

Intake: March & September

Tuition: 38000 CNY/Year

Department:

School of Medicine

Scholarships:

20,000 CNY (Presidential)

1,500 - 2,500 CNY (Schooling)

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## CORE COURSES

Among the courses that students learn under Clinical Medicine as major are as follows  
Biochemistry  
Cell Biology, Clinical Psychology, Forensic Medicine, Human Anatomy, Medical Microbiology, Medical Genetics, Molecular Biology, Medical Statistics, Epidemiology, etc.



# Masters in CHINESE MATERIA MEDICA

Chinese medicine is now so vast, so much so that one-quarter of the American public use Chinese herbal medicines. Although the scientific community doubts their effectiveness, many Western medical institutions offer Chinese medicine as complementary therapies to patients, such as those suffering from cancer. Students will learn how Chinese medicine, influenced by Chinese philosophy, is based on the five elements that make up everything in the universe, including the human body: water, fire, earth, wood and metal. These elements interact with each other in many complex ways.

## RESEARCH DIRECTIONS

- New dosage forms and technologies for preparation of TCM
- Chemical constituents of TCM and their prescription
- Utilization of medicinal resources and geoherbalism
- Quality control of TCM and their prescription
- Mechanism of medicine-target interactions and toxicology of TCM and their prescription

Program Duration: 3 Years

Intake: March & September

Tuition: 38000 CNY/Year

Department:

School of Medicine

Scholarships:

20,000 CNY (Presidential)

1,500 - 2,500 CNY (Schooling)

## WHY CHOOSE TO STUDY THIS PROGRAM IN JSU:

Chinese medicine may contain a mixture of several different materials, popularly called "herbs", but which often includes materials of animal origin such as tiger genitalia or products from a dried human placenta. Jiangsu University provides experienced and professional professors who make the studies very practical for students to understand easily. Our laboratory is fully furnished with all the basic equipment to facilitate teaching and learning of Chinese Material Medicine.

## HOW WILL THIS COURSE ENHANCE MY CAREER PROSPECTS?

Diverse career opportunities after graduation makes it excited to study this major at Jiangsu University for a future job in the field of medicine such as academia, industrial, medical, and veterinary careers using traditional way of treatment.

## CORE COURSES

- Resources of Chinese Materia Medica
- Pharmacology and Toxicology of TCM
- Medicinal Chemistry of Natural products
- Chinese Medicine Processing
- Modern separation Techniques of TCM



# School of PHARMACY

## THE SCHOOL

School of Pharmacy, the earliest pharmacy college in all comprehensive universities in Jiangsu Province, was established in 2001 after the merger of the former Jiangsu University of Science and Technology, Zhenjiang Medical College and Zhenjiang Teachers' College. It combines the academic and human resources of the previous three universities in pharmaceutical research field. Professor Xi-Ming XU assumes the dean of the school. At present, School of Pharmacy consists of three departments (Department of Pharmacy, Department of Pharmaceutics and Department of Pharmaceutical Engineering) and three research centers (Research Center of Drug/Gene Delivery & Tissue Engineering, Institute of Natural Medicines, United Research Center of Jiangsu University & Sopo-xingda pharmaceutical Co. Ltd.). It offers three four-year undergraduate specialties, which are Pharmacy, Pharmaceutics and Pharmaceutical Engineering, and three graduate programs, including Pharmacognosy, Pharmaceutics and Traditional Chinese Medicine. It now boasts a staff of 40, including eight full-time professors. Apart from normal teaching responsibilities, the school has also successively undertaken over 40 scientific research programs, mainly financed by the National Natural Science Foundation of China, the National 863 (High-tech Research and Development) program and the Natural Sciences Fund of Jiangsu Province as well. Endowed with a pleasant climate, picturesque surroundings and a favorable academic atmosphere, both teachers and students are actively engaged in many scientific research programs. So far, faculty and students have been working on projects like nano drug delivery and tissue engineering research, the study of new dosage forms for traditional Chinese medicine (TCM), pharmacodynamical studies of compound traditional Chinese medicine, biotechnology and bioengineering research of TCM, as well as research for new drug carrier materials. With the combined endeavor of all faculty and students, great achievements have been made on many projects and we look forward to achieving more and becoming better.

## DEPARTMENTS

- Pharmacy
- Pharmaceutics
- Pharmaceutical Engineering
- Center of Laboratory



# Masters in PHARMACEUTICAL SCIENCE & ENGINEERING

The MS in pharmaceutical sciences degree focuses on drug discovery, research, development and manufacturing. The program offers unique tracks to provide students with specialized training to help them meet their career interests and goals. The school of Pharmacy and Pharmaceutical Sciences prepares you for more than just a job. At Jiangsu University, School of Pharmacy and Pharmaceutical Sciences, students are prepared for success in pharmacy, the pharmaceutical sciences, and pharmacy management. Our programs prepare students for a broad spectrum of careers in research, business, health care and beyond.

## RESEARCH DIRECTIONS

School of Pharmacy and Pharmaceutical Sciences offers the Master of Science in Pharmaceutical Sciences degree with research directions in Pharmacology/Toxicology, Industrial Pharmacy, and Health Outcomes and Socioeconomic Sciences.

Program Duration: 3 Years

Intake: March & September

Tuition: 26000 CNY/Year

Department:

School of Pharmacy

Scholarships:

20,000 CNY (Presidential)

3,000 - 5000 CNY (Schooling)

## HOW WILL THIS COURSE ENHANCE MY CAREER PROSPECTS?

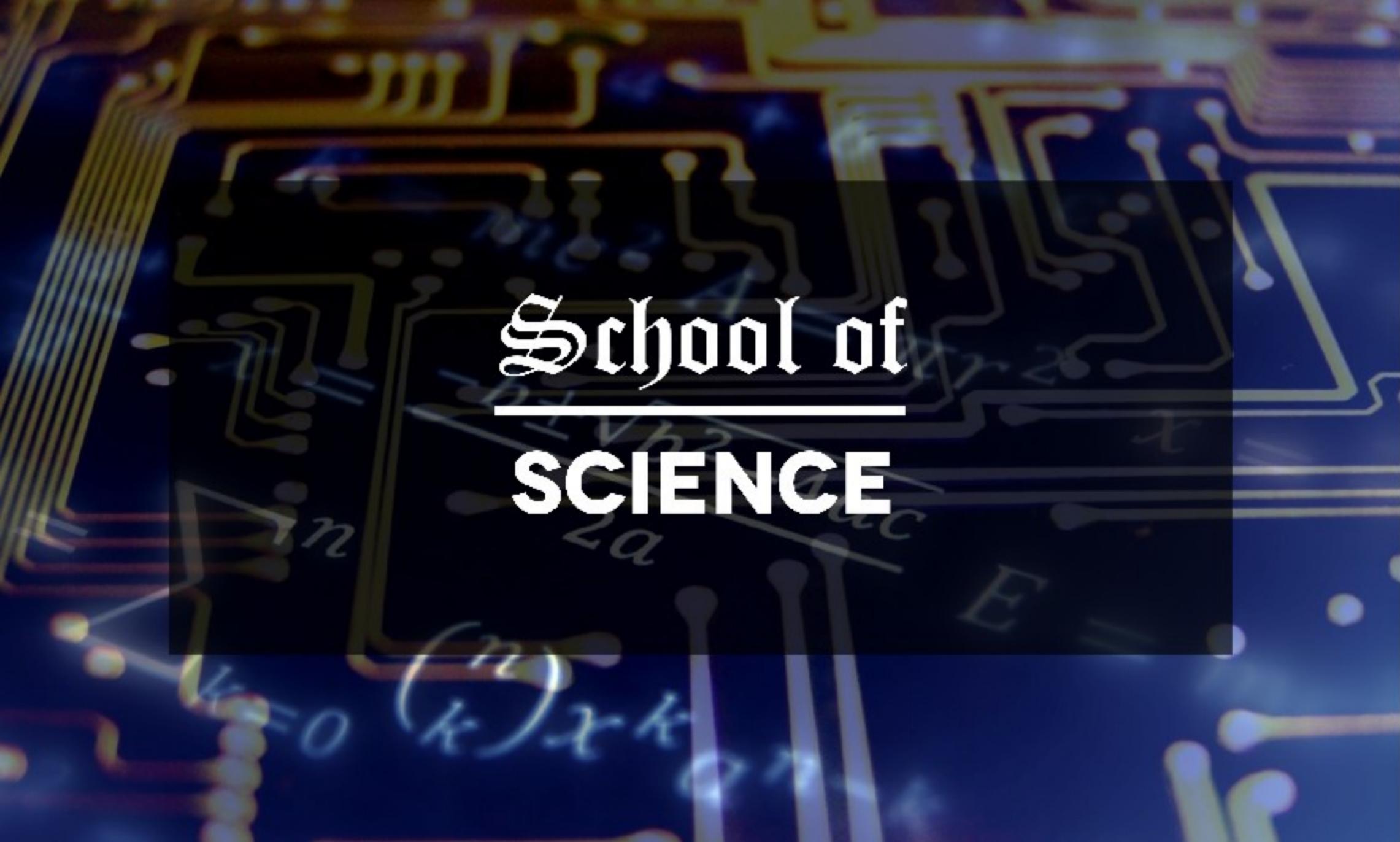
While pharmacists are directly involved in patient care and work with existing drugs, it's pharmaceutical scientists who create new drugs and therapies. The pharmaceutical sciences draw on a wide range of disciplines to discover, test, and manufacture new drugs and therapies, as well as evaluate their effectiveness and safety.

## WHY CHOOSE TO STUDY THIS PROGRAM IN JSU:

Graduates of the Jiangsu University, School of Pharmacy's multidisciplinary master's degree programs are highly sought after by leading institutions in academia, industry and government. The Master of Science in Pharmaceutical Sciences emphasizes basic as well as applied research in drug delivery and targeting, utilizing medicinal chemistry, computational chemistry, pharmaceutics, pharmacokinetics, pharmacodynamics, immunology, and molecular and cell biology.

## CORE COURSES

- Experimental Pharmacology
- Modern Techniques in Pharmaceutical Analysis
- Drug metabolism and pharmacokinetics
- Synthetic chemistry and drug design
- Gene transfer and tissue engineering
- Pharmaceutical preparations pilot equipment and molding process
- Modern separation technology and application of TCM
- Bio-informatics
- Toxicology



# School of SCIENCE

## THE SCHOOL

Faculty of Science offers a post-doctoral research station in Control Science and Engineering, a doctoral program in Systems Engineering and 8 master programs in the fields of Fundamental Mathematics, Probability and Mathematical Statistics, Applied Mathematics, Computational Mathematics, Operational Research and Cybernetics, Systems Engineering, Physical Electronics, Optical Engineering, among which Systems Engineering is a provincial key discipline. It offers 3 undergraduate specialties with 6 programs: Mathematics and Applied Mathematics, Mathematics and Applied Mathematics (Normal), Information and Computational Science, Mathematics and Applied Mathematics (International Program), Normal Physics, Applied Physical Technology, among which Information and Computational Science is a provincial special major. At present, Faculty of Science has an enrolment of 581 undergraduates and 197 postgraduates. The faculty has 150 faculty members, among whom there is one specially-appointed academician, 7 doctoral supervisors, 56 professors or associate professors. Over 60% of the teachers are either Ph.D holders or master's degree holders. In the past five decades, more than 900 research papers have been published, of which over 360 were indexed by SCI, EI and ISTP and more than 30 monographs have been published. Besides, the faculty has undertaken over 30 research projects funded by the National Natural Science Foundation and more than 50 projects funded by Jiangsu province or ministries of the State Council. The Faculty of Science has been developing a close relationship of cooperation with many prestigious universities and institutes at home and abroad. More than twenty domestic and overseas experts are appointed as the faculty's part-time professors.

## DEPARTMENTS

Mathematics  
Physics



# CONTROL SCIENCE & ENGINEERING

System engineering is the application of system science in practice, and is also an interdisciplinary subject of information, control and management, which is used to solve the practical problems of various complex and interdisciplinary systems. Its research areas include engineering, economic, environmental and social fields, and is based on system science, control science and information science. Mathematics and computer technology and network science are the main research tools used. The research content is concerned with system modeling, analysis, design and optimization, forecasting and decision-making. It is aimed at training advanced talents with a wide range of professional and domain knowledge, who are skillful to use computer networks and other information technology tools, and can be engaged in systems engineering theory, system analysis and management independently.

## WHAT WILL I LEARN?

You will master a solid foundation of theoretical and systematic expertise in the field of systems engineering disciplines, and be familiar with the research direction of the scientific development trend. Despite the above, one could also acclimatize with the field of systems engineering scientific research work or develop an independent commitment to specialized technical work and teaching capacity. You will also have some new insights in science or specialty, and can use the system engineering technology theory independently to carry out scientific research and practical engineering work.

## HOW WILL THIS COURSE ENHANCE MY CAREER PROSPECTS?

Systems engineering major came into being in the context of the increasingly complex background of social practice, and are now full of strong vitality. In recent years, systems engineering has achieved many results in various fields, and its application has expanded year by year, which brings a lot of employment opportunities for master graduates of systems engineering. Its employment prospects will be getting better and better.

## WHY CHOOSE TO STUDY THIS PROGRAM IN JSU:

The systems engineering is a key discipline in Jiangsu Province. It has a primary discipline of doctorate and master degree, and a high-level team including academicians, and has undertaken national scientific research projects. It also has a certain international influence in the energy economy system analysis and complex network theory and its application areas.

## CORE COURSES

Nonlinear functional  
linear System Theory  
Digital control technology in motor  
Digital image Processing  
Computer control and Application  
Mathematic Model  
Electric drive and Control  
Complex Network Control and Modeling  
System modeling, simulation and optimization

# Masters in CONTROL SCIENCE & ENGINEERING

Program Duration: 3 Years

Intake: March & September

Tuition: 24000 CNY/Year

Department:

School of Sciences

Scholarships:

20,000 CNY (Presidential);

3,000-5,000 CNY (Schooling, for 3-5 Students);

## RESEARCH DIRECTIONS

Intelligent control of electric drive  
Nonlinear system theory and application  
Pattern recognition and intelligent detection technology  
Intelligent automation and network control in the production process  
Modeling and Controls of Complex Economic System  
Control and Optimizations of Network  
Information Theory and its Applications

## RESEARCH DIRECTIONS

Intelligent control of electric drive  
Nonlinear system theory and application  
Pattern recognition and intelligent detection technology  
Intelligent automation and network control in the production process  
Modeling and Controls of Complex Economic System  
Control and Optimizations of Network  
Information Theory and its Applications

# PhD in CONTROL SCIENCE & ENGINEERING

Program Duration: 3 Years

Intake: March & September

Tuition: 28000 CNY/Year

Department:

School of Sciences

Scholarships:

28,000 CNY including accommodation (-residential)

3,000-5,000 CNY (Schooling, for 3-5 Students);



# Masters in MATHEMATICS

The School of Materials Science & Engineering offers graduate program to students pursuing master degree in materials science & engineering. The program aims at bringing about adequate practical training opportunities for engineering graduates and engineering students in sandwich courses to enable them to complete their training and to attain professional status. The goal of the program is to equip the graduates with a solid and broad mathematical basis and to train the graduates to be engaged in mathematics course teaching, scientific researches that apply to mathematics and computer to solve practical problems in engineering, economics, finance and others posed by departments we cooperate with.

## RESEARCH DIRECTIONS

1. Nonlinear Differential Equations
2. Limit theorem in Probability, Information Theories
3. Complex System Modeling, Analysis and Controls
4. Theories and Applications of Dynamical System
5. Lie algebras and their representations
6. Integer Partitions
7. Enumerative Combinatorics

Program Duration: 3 Years

Intake: March & September

Tuition: 24000 CNY/Year

Department:

School of Sciences

Scholarships:

20,000 CNY (Presidential)

3,000-5,000 CNY (Schooling, for 3-5 Students)

## HOW WILL THIS COURSE ENHANCE MY CAREER PROSPECTS?

In general, mathematics graduates go on to pursue roles of actuaries, operations research analysts, cryptologist, economist, mathematics professors, robotics engineers, climate analysts, forensic analysts, population ecologists, military, algorithm developers and all professions that require critical thinking and reasoning and decision making to solve problems. Some graduates of Mathematics go on to pursue successful careers in academia and research at universities, or government research centers.

## WHY CHOOSE TO STUDY THIS PROGRAM IN JSU:

JSU has the required infrastructure and facilities and provides a conducive environment for successful scientific research work. Again the financing of the research projects, makes the University a better place to study mathematics. Another reason is the presence of engineering programs which require mathematical skills to solve problems. Hence studying Mathematics at JSU provides one with a first-hand problem-solving opportunity with experimental evidence

## CORE COURSES

- Fundamentals for Real and Functional Analysis
- Functional Analysis
- Fundamentals of Algebraic
- Advanced Numerical Analysis
- Elements of Measure Theory
- Differential Equations with Numerical Methods
- Qualitative Theory of Differential Equations
- Analysis of the Theory of Probability
- Economic Mathematical Methods and Models

# School of MARXISM

## THE SCHOOL

The School of Marxism offers two bachelor's degree programs and three master's degree programs. The bachelor's degree programs include Ideological and Political Education, History Education. The master's degree programs include Principles of Marxism, Ideological and Political Education, Marxist Philosophy. The first-level disciplines master degree points of Theory of Marxism was examined and verified by Academy Degree Office of Jiangsu Province in 2010. The school is responsible for teaching all undergraduates and post graduates political and theoretical subject and constructive tasks of corresponding courses in the university. It has four teaching and research departments including Basic Principles of Marxism, Mao Zedong Thought Theory of Socialism with Chinese Characteristics, Outline of Modern Chinese History, Ideological and Moral Cultivation and Legal Basis. The school employs 55 staff members including 13 full Professors and 25 Associate Professors 26 PhDs and PhD candidates. The school has an enrollment of 218 students 104 postgraduate students included.

## DEPARTMENTS

Basic Principles of Marxism  
Mao Zedong Thought  
Theory of Socialism with Chinese Characteristics  
Outline of Modern Chinese History



# Masters in THEORIES OF MARXISM

The Theories of Marxism Program, a three-year English Graduate program offered by School of Marxism at Jiangsu University, with Chinese as the main instruction language. The program is same to the Theories of Marxism Program offered to Chinese students and contains two year school curriculum and one year thesis writing. Most of the courses are taught in Chinese and only 3 or 4 courses are taught in English.

## RESEARCH DIRECTIONS

The program offers certain opportunities for students to seek to pursue academic research, especially on how to improve the ideological and political education in China, and to explore the relationship between western Marxism and the Marxism with Chinese characteristics. Three or four academic advisors will be assigned to supervise students' research and their thesis writing. We encourage students to write more publishable articles.

## WHAT WILL I LEARN?

The program has five majors as following: the fundamental principles of Marxism, the history of Marxism, the sinicization of Marxism, western Marxism and the ideological and political education. By joining the program, international students will learn the tenets of Marxism which will help deepen their understanding of Marxism with Chinese characteristics and broaden their horizon of Marxism. Students are required to write more than one article and to publish them on the Chinese core academic journals.

## HOW WILL THIS COURSE ENHANCE MY CAREER PROSPECTS?

Holding high the great banner of Deng Xiaoping Theory, fully acting on Three Represents, Scientific Outlook on Development and the series important speech of Xi Jinping, China now is building a well-off society in an all-round way, speeding up socialist modernization and working hard to create a new situation in building socialism with Chinese characteristics. Therefore, Marxism in China becomes more and more important in guiding the practice of reforming and opening up, in addition, Marxism with Chinese characteristics arouses broad attention from all over the world.

## WHY CHOOSE TO STUDY THIS PROGRAM IN JSU:

Jiangsu University is a comprehensive teaching and research-oriented university and ranked among the best 40 out of 3000 universities in China, with its long history, rich culture, accomplished scholars, distinguished alumni, and outstanding students. School of Marxism offers good environment which facilitates your study life.

**Program Duration:** 3 Years

**Intake:** March & September

**Tuition:** 22,000 CNY

**Department:**

School of Marxism

**Scholarships:**

20,000 CNY including Accommodation (Presidential)



# Bachelor of

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# AUTOMOTIVE & TRAFFIC ENGINEERING

## THE SCHOOL

School of Automotive and Traffic Engineering enjoys mighty teaching and research ability. Currently, it offers four bachelor's programs, including Vehicle Engineering, Power Mechanical Engineering (I. C. engine), Traffic Engineering and Transportation Engineering, among which Vehicle Engineering and Power Mechanical Engineering (I. C. engine) are "Brand Programs" that Jiangsu provincial government gives priorities to their development. Three major disciplines of Vehicle Engineering, Power Mechanical engineering (I. C. engine) and Traffic and Transportation Engineering complement one another and are developing harmoniously. There are six doctoral programs (Vehicle Engineering, Power Mechanical Engineering and Transportation Engineering) and two post-doctoral work stations (Vehicle Engineering, Power Mechanical Engineering). The school boasts 3 provincial-level research institutes. The Vehicle Product Laboratory passed the national evaluation by the Chinese Committee of National Accreditation of Laboratory, and has become a national-level vehicle product testing and inspection lab, entrusted to examine vehicle products for the CQC and CCAP. There are 120 faculty and staff members, among whom are 31 professors and 28 associate professors. 47 of the faculty hold the doctor's degree and 44 the master's degree. Over 20 academicians and experts at home and abroad are engaged as honor professors, part-time professors or lecture professors. In recent years, ten teachers have been sent to distinguished universities or research institutes abroad for joint research or degree programs. At present, the school has an enrollment of 1700 undergraduate students, 500 master candidates and 50 doctor candidates. With a history of more than 50 years and especially the rapid development in the past ten years, teaching and research ability have upgraded significantly. Inspiring achievements include completion of over 100 research projects at provincial-level and about 500 corporations' research projects. It has been awarded more than 60 Technology Advancement Award at provincial or ministerial level.

## DEPARTMENTS

- Power Machinery Engineering
- Transportation Engineering
- Traffic Engineering
- Transportation Engineering



# TRAFFIC & TRANSPORTATION ENGINEERING

School of Automotive and Traffic Engineering enjoys mighty teaching and research ability. Currently, it offers four bachelor's programs, among which Vehicle Engineering and Power Mechanical Engineering are "Brand Programs" that Jiangsu provincial government gives priorities to their development. The school boasts 3 provincial-level research institutes. The Vehicle Product Laboratory passed the national evaluation by the Chinese Committee of National Accreditation of Laboratory, and has become a national-level vehicle product testing and inspection lab, entrusted to examine vehicle products for the CQC and CCAP.

## WHAT WILL I LEARN?

You acquire skills and innovative ability to conduct a research projects. This means, one develops a sense of independence in thinking and reasoning, discipline and patience.

## WHY CHOOSE TO STUDY THIS PROGRAM IN JSU:

The major of Traffic and Transportation Engineering in JSU is Provincial key disciplines which is able to provide high level education resources. Now, this program teams existing 63 people, of which 15 are doctoral tutor, 21 are professor, 24 are associate professor and 31 have a doctorate degree.

## HOW WILL THIS COURSE ENHANCE MY CAREER PROSPECTS?

The disciplines involved in the PG programs of our faculty are implemented by highly experienced faculty members, aiming to developing your skills in a boarder sense. Our education will not only help you to earn your graduate degree but also to enhance your ability to adapt to the various professional works in the field of traffic and vehicle related aspects.

## CORE COURSES

Vehicle reliability, Vehicle fault diagnosis, Theory of traffic flow and control, Traffic and transportation management planning, Elastic-plastic mechanics, Nonlinear FEA, Solid mechanics and dynamics, Numerical method in terramechanics, Traffic net, Simulation in traffic system, Traffic signal control and Imagine analysis, Traffic control in express way, Modern traffic engineering, ITS, Traffic safety engineering, Vehicle dynamics and control, and Measuring and testing techniques.

# Masters in TRAFFIC & TRANSPORTATION ENGINEERING

Program Duration: 3 Years

Intake: March & September

Tuition: 24000 CNY/Year

Department:

School of Traffic & Transportation Engineering

Scholarships:

20,000 CNY (Presidential)

## RESEARCH DIRECTIONS

Road Vehicle dynamic performance simulation and control  
Road Vehicle comprehensive energy conservation and emission control  
Ground vehicle system  
Urban traffic control and management  
Transportation system safety and environment  
ITS  
Vehicle operating organization and logistics technology

# PhD in TRAFFIC & TRANSPORTATION ENGINEERING

Program Duration: 3 Years

Intake: March & September

Tuition: 24000 CNY/Year

Department:

School of Traffic & Transportation Engineering

Scholarships:

28,000 CNY including Accommodation (Presidential)

## RESEARCH DIRECTIONS

Simulation and control of road vehicle dynamic performance  
Synthesis energy saving and environment protection of traffic conveyance  
Research of traffic information and safety  
Road vehicle operation and control  
Intelligent transportation system