



北京航空航天大学  
BEIHANG UNIVERSITY

## **Doctoral Program for International Postgraduates**

### **Management Science and Engineering**

#### **管理科学与工程专业简章**

#### **Qualification**

The applicant is expected to study hard, observe the Chinese laws and the regulations of Beihang University.

The applicant should have a master's degree or have the equivalent educational background of a master's degree.

The applicant should be under the age of 40 in general.

The applicant should have a good command of English and have the ability to take courses in English or Chinese.

#### **Training Goals**

To have firm and comprehensive foundation in theories and systematic and professional knowledge in the discipline concerned.

To have the capability to complete scientific research work independently.

To conduct original research in science and/ or technology.

#### **Research Fields**

- Management Science Theory and Application
- Management System Optimization and Simulation
- Decision Theory and Risk Management
- Industrial Engineering Theory and Application
- Knowledge Management and Technology Innovation
- Complex Data Analysis
- Information Management and Decision Support System
- Project Management and Value Analysis
- Logistics and Supply Chain Management
- Electronic Business and Web Intelligence
- Strategy Management and Human Resource Management
- Transportation System Planning and Network Analysis
- Traffic Behavior Analysis and Traffic Management
- Production and Operations Management

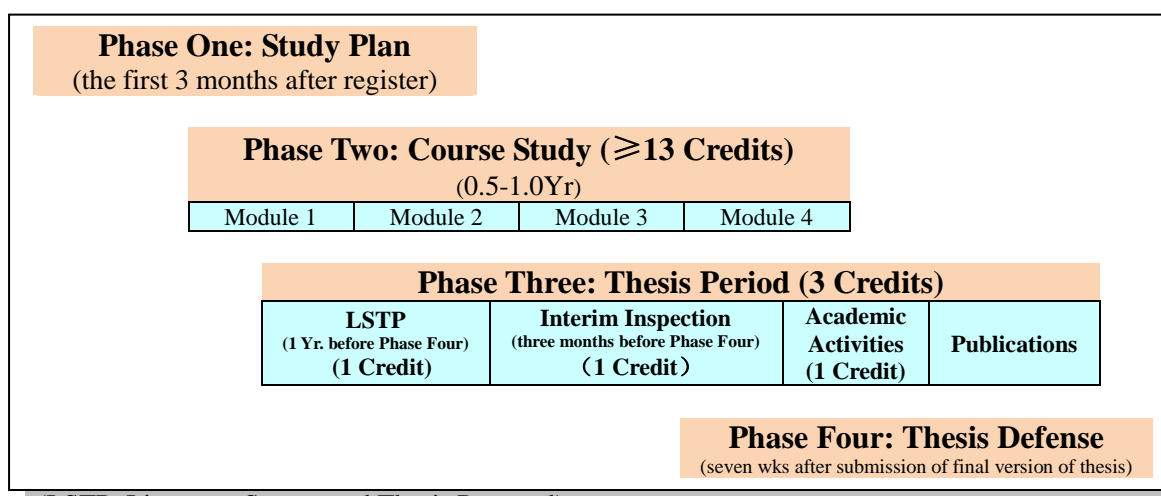
## Study Periods

3-4 years.

## Procedures and Requirements

There are four Key Stages for doctoral and master programs. They are Training Plan (Stage One), Course Study (Stage Two), Thesis Period (Stage Three), and Thesis Defense (Stage Four).

To ensure the quality of study, the supervisor or the panel headed by the supervisor has the responsibility to supervise his/ her international postgraduate, including making the training plan, selecting the research project, conducting scientific research, writing thesis and organizing the final degree defense.



(LSTP: Literature Survey and Thesis Proposal)

## Course Catalogue

### Module 1: Language and Culture 语言和文化类课程

Chinese 汉语 (3 Credits)

Introduction to China 中国概况 (1 Credit)

### Module 2: Mathematics 数学类课程

Theory of Matrix 矩阵理论 (3 Credits)

Numerical Analysis 数值分析 (3 Credits)

Differential Equations and Dynamics System 微分方程与动力系统 (3 Credits)

Fractals and Wavelets 分形与小波分析 (3 Credits)

Probability and Statistics 概率统计 (3 Credits)

### Module 3: Major Core Courses 专业核心课程

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|--|---|
|  | <b>Module 3.1 Thesis Writing 科技论文写作</b>   |
|  | Scientific Thesis Writing (1Credit)   |
|  | <b>Module 3.2 Major Core Courses 专业核心课</b>  |
|  | <p>Under the guidance of supervisor, according to the major and research direction, students select major core courses meeting the credit requirements from the following courses.</p> <ul style="list-style-type: none"> <li>● Microeconomics 微观经济学 (2 Credits)</li> <li>● Marketing Management 营销管理 (2 Credits)</li> <li>● International Finance 国际金融学(2 Credits)</li> <li>● Operations Management 运作管理(2 Credits)</li> <li>● Supply Chain Management 供应链管理(2 Credits)</li> <li>● Accounting 会计学(2 Credits)</li> <li>● Decision Analysis 决策分析(2 Credits)</li> <li>● Decision Modeling and Analysis with MS Excel 决策建模与分析(2 Credits)</li> <li>● Corporate Finance 公司财务(2 Credits)</li> <li>● Macroeconomics 宏观经济学(2 Credits)</li> <li>● Operational Research 运筹学(2 Credits)</li> <li>● Project Management 项目管理(2 Credits)</li> <li>● Investment 投资学(2 Credits)</li> <li>● Econometrics 计量经济学(2 Credits)</li> <li>● International Trade 国际贸易学(2 Credits)</li> <li>● Human Resource Management 人力资源管理(2 Credits)</li> <li>● Statistics 统计学(2 Credits)</li> <li>● Retail Management 零售管理(2 Credits)</li> <li>● Modern Heuristic Optimization Theory and Algorithms 现代启发式优化理论与算法(2 Credits)</li> </ul> |
|  | <b>Module 3.3 Courses Specified by Supervisor and the School Concerned 导师及学院指定的课程</b>   |
|  | <p>Module 3.3.1 Interdiscipline Course offered by other school (s) or major(s) 跨专业课程</p> <p>Module 3.3.2 Engineering Foundational Course 校级基础课</p> <ul style="list-style-type: none"> <li>● C Language C 语言 (3 Credits)</li> <li>● Matlab Programming Matlab 程序设计 (2 Credits)</li> <li>● Computer Networking and Applications 计算机网络及应用技术 (2 Credits)</li> <li>● Space Technology and Space Economy 航天技术与太空经济 (1 Credit)</li> <li>● Introduction to Modern Manufacturing Technology 现代制造技术概论 (2 Credits)</li> <li>● Scientific Literature Retrieval 科技文献检索与利用 (1 Credit)</li> </ul>  |

#### **Module 4: Elective Courses 选修课**

Students may take the courses listed in Module 3.2 as elective courses, also may take graduate courses taught in Chinese by School of Economics and Management as elective courses.

### **Introduction of Beihang University**

Beihang University is one of China's best universities in science and technology. It was founded in 1952 with the merger of the aeronautical departments of eight top Chinese universities. Since its founding, Beihang has excelled as one of the first 16 key universities in China, given priority for development. In 2017, Beihang was chosen to participate in the Double First-Class plan. At present, the university comprises more than 30 schools, covering science, technology, medicine, liberal arts, law, economy, management, philosophy, foreign languages and education. It has 2,147 full-time faculty members. Beihang has now a total enrollment of over 30,000 full-time students, including about 2,200 international students.

While maintaining its focus at home, Beihang University is also seeking collaborations abroad. Implementation of the "university-to-university, professor-to-professor, and student-to-student" development strategy has helped to build Beihang's network for international exchange and cooperation, significantly growing the university's influence and competitiveness abroad. We believe that great students make a great university possible, and being a student in Beihang University means being a part of an energetic, dynamic group of people who are passionate, curious and committed to their areas of study, and more importantly, a global vision in this ever-changing business and technology world.

Beihang University is a campus where Chinese culture meets the West, science is interwoven with art, history and innovation coexist, and enthusiasm and inspiration work synergistically to spark creativity. This vibrant national key university continues to forge a path unceasingly toward its goal of achieving a world-class standard in education and research, while remaining deeply connected to its domestic roots.

### **Contact Information**

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