

# Management Science and Engineering

## 管理科学与工程

(120100)

### 1. Overview of the Program

Management Science and Engineering was established in 1980. Our program is the first batch of universities that are approved to offer the degree of Management Science and Engineering. The program has mainly five research areas: Decision-making theory and methods, Information Management and Information Systems, System Reliability and Risk Management, Complex System Modeling and Management Systems Engineering, and Knowledge Management and Innovation Management.

### 2. Training Target

The target is to train high-level innovative talents who have a good knowledge of international common sense, with the ability of spreading Chinese and foreign cultures occupied, so that to bring international graduate students into full play as a cultural bridge.

### 3. Length of Schooling

The basic length of schooling for master students is 2 years. In principle, students should complete the courses in the first academic year. Thesis work time should not be less than one year. The maximum length of study for master students is extended by 0.5 years on the basis of 2 years. The basic length of schooling for Ph.D. students is 4 years. In principle, students should complete the courses in the first academic year. Thesis work time should not be less than three years. The maximum length of study for Ph.D. students is extended by 2 years on the basis of 4 years.

### 4. Curriculum and Credit Requirements

Course Classification	Course Code	Course Name	Course Hours	Credits	Semester	Requirements	Master /Ph.D.	Credits Requirement
Public Course	3700001	Chinese Language 汉语	96	3+3	1+2	Compulsory	Master /Ph.D.	Master=6 Ph.D.=6
	3700002	Outline of China	32	2	1/2	Compulsory	Master /Ph.D.	Master=2 Ph.D.=2

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			中国概况						
Major Basic Courses		2101001	Intermediate Microeconomics 中级微观经济学	32	2	1/2	Optional	Master	Master≥2 Ph.D.≥2
		2101002	Advanced Microeconomics 高级宏观经济学	32	2	1/2	Optional	Ph.D.	
		2101003	Research Methodology 研究方法	32	2	1/2	Optional	Master	
Optional Course	Major Core Courses	2101004	Efficiency and productivity analysis of energy and environment 能源环境效率与生产率 分析	32	2	1/2	Optional	Master /Ph.D.	Master≥2 Ph.D.≥2
		2101005	Industry green management and optimization 行业绿色管 理及优化	32	2	1/2	Optional	Master /Ph.D	
	Major	2101006	Management	32	2	1/2	Optional	Master	Master≥6

	Optional course		information systems 管理信息系 统						Ph.D.≥2
		2101007	Operations Research 运筹学	48	3	1/2	Optional	Master	
		2101008	Intermediate Econometrics 中级计量经 济学	32	2	1/2	Optional	Master	
		2101009	Macroecono mics 宏观经济学	32	2	1/2	Optional	Master /Ph.D.	
		2101010	Advanced Econometrics 高级计量经 济学	32	2	1/2	Optional	Master /Ph.D.	
Total Credits		Master≥18credits				Ph.D.≥14 credits			

**Notes :**

**1. Public Course**

(1)Chinese Language: Set by International Students Center of BIT. All international students must take this compulsory course.

(2)Outline of China: Set by International Students Center of BIT. All international students must take this compulsory course.

**2. Major Basic Courses**

Different Programs can set their own Major Basic Course.

**3. Optional Course**

(1) Major Core Courses

Different Programs set their own Major Core Course.

(2)Major Optional course

Master international students must take two optional courses of their own Program. Under the guidance of the supervisor, Master international students can take undergraduate courses if needed.

Ph.D. international students can take undergraduate courses if needed.

## **5. Practice Part**

### 1. Academic Activity (1 credit)

International Graduate Students need to participate in academic activities, academic lectures and academic conferences of their own fields. Giving oral speeches on academic conferences, whether on or off campus, are highly recommended.

### 2. Innovative Practice (1 credit)

International Graduate Students should take scientific research training and social practices during their training period, which should be carried-out and evaluated by supervisors.

## **6. The Dissertation Related Work**

### 1. Literature Review& Opening Report

Under the guidance of the supervisor, International Graduate Students should pick a research direction as well as reading certain amount reference books, both Chinese or foreign languages, at the same time.

Master students should write a literature review, no less than 4000 words, based on the reading of over 30 papers , both Chinese or foreign languages, of their own research field.

Ph.D. students should write a literature review, no less than 5000 words, based on the reading of over 50 papers , both Chinese or foreign languages, of their own research field.

On the basis of the Literature Review, the Opening Report should mainly introduce following factors: research target, research meaning, methods of research, technical route, implementary plan, arrangements and expected results.

### 2. Mid-Term Evaluation

Schools organize Mid-Term Evaluation for International Students, which includes the evaluations of course study, literature review, opening report and the research progress of publishing papers and writing of Degree thesis.

### 3. Thesis Writing and Thesis Pre-Defense (for Ph.D. students)

International Graduate Students should complete a Degree thesis under the guidance of supervisors.

Ph.D. students can take the Thesis Pre-Defense after finishing a supervisor-approved first draft.

#### 4. Thesis Defense

After thesis approved and the Sub- Committee of Degree Assessment authorized, International Graduate Students can take the Thesis-Defense.

#### 5. Degree Conferment

International students should acquire certain academic results as regulated when applying for a Master or Ph.D. Degree. Each program should clarify the categories of Master Degree and Ph.D. Degree.

#### **Time nodes of relevant procedure**

<b>The Dissertation Related Work</b>	<b>Master</b>	<b>Ph.D.</b>
Literature Review& Opening Report	Before week 1 of the 3 <sup>rd</sup> semester	Before week 1 of the 5 <sup>th</sup> semester
Mid-Term Evaluation	week 1-2 of the 4 <sup>th</sup> semester	Before week 1 of the 7 <sup>th</sup> semester
Thesis Pre-Defense	—	Before Blind review
Thesis Defense	At least 9 months after the Opening Report	At least 18 months after the Opening Report
Degree Application	The application should be raised in a certain time after the Thesis Defense	

#### **7. Course Syllabus**

Course Code, Course Name, Class Hour, Credits, Course Description and Course Target, Teaching Method, Evaluation and Exams, Suitable Specialty, Prerequisites, Course Contents, Reference, and Lecturer Introduction.