北京工商大学
留学研究生培养方案
（2026 年）

研究生院

2026 年 9 月

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经济学院

产业经济学(020205)硕士留学研究生培养方案
Training Program for International Graduate Students
Master of Industrial Economics (020205)

授予学位类别：经济学

一级学科代码及名称：0202 应用经济学

二级学科代码及名称：020205 产业经济学

制订单位：经济学院

一、培养目标

本学科以立德树人为根本任务，培养知华友华、具备扎实产业经济学理论功底和独立研究能力的高层次学术型人才。学生应遵守中国法律法规，恪守学术道德，系统掌握产业经济学基础理论和前沿知识，熟练运用现代经济学分析方法，深入剖析中外产业经济现实问题，在流通产业研究、产业组织理论与产业政策、期货市场与产业发展等领域形成创造性成果。具备良好的中文沟通能力和学术写作能力，同时进一步提升英语水平，能够追踪国际学术前沿并开展国际学术交流。毕业后能够运用所学服务本国经济发展与中外经贸合作，成为具有国际竞争力的复合型高级专门人才。

I. TRAINING OBJECTIVES

Rooted in the fundamental mission of fostering virtue and nurturing talent, this program aims to cultivate high-level academic talents who are knowledgeable about China and friendly towards it. Students are expected to possess a solid theoretical grounding in industrial economics and demonstrate independent research capabilities. They shall abide by Chinese laws and regulations, uphold academic integrity, systematically master fundamental theories and cutting-edge knowledge of industrial economics, and skillfully apply modern economic analysis methods to the in-depth examination of practical issues in both Chinese and foreign industrial economies. Students are encouraged to produce creative achievements in areas such as distribution industry studies, industrial organization theory and policy, and futures markets and industrial development. They will develop strong Chinese language communication and academic writing skills, while further improving their English proficiency to keep pace with international academic frontiers and engage in global scholarly exchanges. Upon graduation, they should be able to apply what they have learned to serve the economic development of their home countries and to facilitate Sino-foreign economic and trade cooperation, thereby becoming versatile, high-level professionals with international competitiveness.

二、学科简介与研究方向

产业经济学学科前身是原北京商学院贸易经济学专业，1979 年开始招收商业经济学硕士研究生，

1981 年获批商业经济硕士点，是国务院首批硕士学位授权点之一；1997 年更名为产业经济学硕士点，同年获批原国内贸易部重点学科；2003 年至今为北京市重点学科；2018 年获批应用经济学一级学科博士学位授权点（产业经济学方向）。经过数十年的建设与发展，本学科已成为我国产业经济学领域具有重要影响力的学科点之一。本学科拥有一支结构合理、科研实力雄厚的师资队伍，多位教师在中国农业经济学会、中国商业经济学会、中国市场学会、中国物流学会等国家级学术组织担任副会长、副秘书长、常务理事等重要学术兼职，在学术界和产业界具有广泛影响力。

本学科聚焦数字产业与数字流通、产业组织与政府规制、商贸发展与消费经济等重点领域，围绕促进实体经济和数字经济深度融合、提升产业链供应链韧性和安全水平、加快数智供应链发展等国家重大战略需求，在产业数字化转型、平台经济治理、现代流通体系构建、全国统一大市场建设等前沿议题上持续开展深入研究。主要研究方向：流通产业研究、产业组织理论与产业政策、期货市场与产业发展。

II. DISCIPLINE INTRODUCTION AND RESEARCH DIRECTION

The Industrial Economics discipline originated from the Trade Economics program of the former Beijing Institute of Business. It began enrolling master's students in Business Economics in 1979 and was approved to offer a master's degree in Business Economics in 1981, making it one of the first master's degree authorization sites granted by the State Council. In 1997, it was renamed as the Industrial Economics master's program and was designated a key discipline by the former Ministry of Domestic Trade in the same year. Since 2003, it has been a Beijing municipal key discipline. In 2018, the university was authorized to offer a doctoral degree in the first-level discipline of Applied Economics (with Industrial Economics as one of its directions). Through decades of development, this discipline has become one of the most influential programs in the field of industrial economics in China. The discipline benefits from a well-structured faculty team with strong research capabilities. Many of its members hold important academic positions such as vice president, deputy secretary-general, or standing director in national-level academic organizations, including the China Association of Agricultural Economics, the China Society of Business Economics, the China Marketing Association, and the China Logistics Society, thus exerting broad influence in both academic and industrial circles.

The discipline focuses on key areas such as digital industry and digital distribution, industrial organization and government regulation, and commercial development and consumer economics. In response to major national strategic needs—including promoting the deep integration of the real economy and the digital economy, enhancing the resilience and security of industrial and supply chains, and accelerating the development of intelligent and digital supply chains—the program conducts continuous in-depth research on frontier issues such as industrial digital transformation, platform economy governance, the construction of modern distribution systems, and the development of a unified national market. The main research directions are as follows: Circulation Industry Research; Industrial Organization Theory and Industrial Policy; and Futures Markets and Industrial Development.

三、学制和学习年限

产业经济学专业来华留学硕士研究生学制 3 年，最长修业年限 5 年。

III. LENGTH OF STUDY

The normal study duration for this program is three years. And the maximum length is five years.

四、课程设置与学分要求

（一）课程设置

产业经济学专业来华留学硕士研究生所修课程分必修课和选修课，总学分不得少于 40 学分。学分组成为：必修课程不少于 30 学分，其中，公共基础课程不少于 14 学分，学科基础课程 6 学分，专业课程 10 学分。选修课程在导师指导下选择教学计划所列的选修课不少于 8 学分。在完成课程学习同时，研究生还需获得必修环节 2 学分。

在完成以上规定学分的基础上，研究生还可在导师指导下选修校内其它学院开设的研究生课程。

（二）课程考核

培养计划中所有课程和必修环节均要进行考核，考核通过后方能取得学分。研究生课程考核分为考试和考查两种方式，学生选修的学位课一律闭卷考试，非学位课程可采用考试或考查方式。

研究生课程考核成绩按百分制评定，60 分为合格。课程考核成绩由平时成绩和期末成绩组成，平时成绩占总成绩的 30%-50%。平时成绩可采用课程论文、平时测验、读书报告、作业成绩、课堂讨论等方式进行。

必修课考试不合格须申请随下一年级重修，不单独进行补考；选修课不合格允许随下一年级重考或经导师同意改选课程。

重修或重考合格的课程可以取得学分，经重修或重考仍不合格者，不能参加学位论文答辩。研究生在修满规定课程学分后必须参加课程中期考核，考核合格方可参加学位论文答辩。

研究生课程类别及构成说明

课程类别	**学分要求**	**课程类别**	**学分要求**
公共课	14	基础课	6
专业课	10	选修课	≥8
必修环节	2	总学分	≥40
学分说明		总学分=课程总学分+必修环节学分	
在完成以上规定学分的基础上，研究生还可在导师指导下选修校内其它学院开设的研究生课程。			

类别	课程编码	课程名称	学分	学时	开课学期	是否必修
公共课	020205IMG2001	中国概况	2	32	1	必修
	020205IMG4002	汉语（一级）	4	64	1	必修
	020205IMG4003	汉语（二级）	4	64	2	必修
	020205IMG4004	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	020205IMJ2001	产业经济学导读	2	32	1	必修

	020205IMJ2002	管理研究方法论	2	32	3	必修
	025400IMJ2003	经济学分析与应用	2	32	3	必修
	应修		6 学分			
专业课	020205IMZ2001	产业组织理论	2	32	2	必修
	020205IMZ2002	现代农业产业研究	2	32	2	必修
	020205IMZ2003	期货市场研究	2	32	3	必修
	020205IMZ2004	流通经济前沿问题研究	2	32	4	必修
	020205IMZ2005	电子商务产业研究	2	32	2	必修
	应修		10 学分			
选修课	020205IMX2001	消费经济专题研究	2	32	4	选修
	020205IMX2002	STATA 数据管理及应用	2	32	1	选修
	020205IMX2003	经济问题研讨	2	32	2	选修
	020205IMX2004	学术论文写作与研究方法	2	32	2	选修
	020205IMX2005	能源经济学	2	32	3	选修
	020205IMX2006	数字产业经济学	2	32	4	选修
	020205IMX2007	行为经济学	2	32	4	选修
	020205IMX2008	国际金融理论与实务	2	32	2	选修
	025400IMX2001	“一带一路”专题研讨	2	32	2	选修
	020205IMX2010	人工智能与数字贸易专题研讨	2	32	4	选修
	025400IMX2009	数字金融与供应链金融专题	2	32	3	选修
	应修		≥8 学分			
必修环节	学术活动		1		1-4	1
	专业实践		1		1-4	1
	应修		2 学分			
学位论文	开题答辩			3 末		
	中期检查			5 初		
	科研成果审核（文字重复 率检测、匿名评审、答辩）			6 初		
总学分要求			≥40 学分			

说明：具体要求参照同学历层次国内生相应要求。

IV. THE CURRICULUM AND CREDITS REQUIREMENT

1.Curriculum setting

Master’s degree programs for international students in Industrial Economics consist of compulsory courses and elective courses. The total number of credits required is no less than 40 credits. The credit composition is as follows: no less than 30 credits of compulsory courses, of which no less than 14 credits are general foundational courses, 6 credits are discipline-based foundational courses, and 10 credits are

specialized courses. For elective courses, under the guidance of their supervisors, students must select no less than 8 credits from the electives listed in the teaching plan. In addition to completing course study, students are required to earn 2 credits from mandatory academic activities.

On the basis of completing the above-specified credits, students may, under the guidance of their supervisors, take postgraduate courses offered by other schools or departments within the university.

2.Curriculum assessment

All courses and mandatory academic activities in the training plan are subject to assessment, and credits can only be obtained upon passing the assessment. Postgraduate course assessment includes two forms: examination and evaluation. Degree courses taken by students are all assessed by closed-book examination, while non-degree courses may be assessed either by examination or by evaluation.

Course assessment results are graded on a 100-point scale, with 60 being the passing score. The final grade consists of continuous assessment (coursework) and a final examination. Continuous assessment accounts for 30%–50% of the total grade. Continuous assessment may take the form of course papers, quizzes, reading reports, assignments, class discussions, or other appropriate methods.

A student who fails a compulsory course examination is required to apply to retake the course with the next cohort; no separate make-up examination is offered. For an elective course, a student who fails is allowed either to retake the examination with the next cohort or to change to a different elective course with the supervisor's approval.

Credits may be earned for a course upon passing the retake of the course or the re-examination. A student who fails again after retaking the course or the re-examination will not be permitted to proceed to the thesis defense. After completing the required course credits, students must take a mid-term assessment of their coursework. Only those who pass this mid-term assessment may proceed to the thesis defense.

Table 1 Curriculum categories and structure

Course Classification	Credit Requirements	Categories	Credit Requirements
Public courses	14	Basic courses	6
Discipline courses	10	Major Elective courses	≥8
Required Components	2	Total credits	≥40

Table 2 Curriculum and Credits Requirements

Course Classification	CourseCode	CourseTitle	Credits	Course Hours	Semester	Compulsory /Elective
Public Course	020205IMG2001	Chinese Culture	2	32	1	Compulsory
	020205IMG4002	HSK（Level I）	4	64	1	Compulsory
	020205IMG4003	HSK（Level II）	4	64	2	Compulsory
	020205IMG4004	HSK（Level III）	4	64	3	Compulsory
	Credits Requirement		14 credits			
Basic Courses	020205IMJ2001	Introduction to	2	32	1	Compulsory

		Industrial Economics				
	020205IMJ2002	Management Research Methodology	2	32	3	Compulsory
	025400IMJ2003	Economic Analysis and Application	2	32	3	Compulsory
	Credits Requirement		6 credits			
Discipline Core Course	020205IMZ2001	Industrial Organizational Theory	2	32	2	Compulsory
	020205IMZ2002	Modern Agricultural Industry	2	32	2	Compulsory
	020205IMZ2003	Futures Market Research	2	32	3	Compulsory
	020205IMZ2004	Research on the Frontier of Circulation Economy	2	32	4	Compulsory
	020205IMZ2005	E-commerce Industry Research	2	32	2	Compulsory
	Credits Requirement		10 credits			
	020205IMX2001	Study on Consumer Economy	2	32	4	Elective
	020205IMX2002	Data management and analysis using STATA	2	32	1	Elective
	020205IMX2003	Discussion on Economic Issues	2	32	2	Elective
	020205IMX2004	Academic Paper Writing and Research Methods	2	32	2	Elective
	020205IMX2005	Energy Economics	2	32	3	Elective
	020205IMX2006	Digital Industrial Economics	2	32	4	Elective
	020205IMX2007	Behavioral Economics	2	32	4	Elective
	020205IMX2008	International Finance and Practices	2	32	2	Elective
	025400IMX2001	Seminar on the "Belt and Road" Initiative	2	32	2	Elective
	020205IMX2010	Seminar on AI and	2	32	4	Elective

		Digital Trade				
	025400IMX2009	Lectures on digital finance & supply chain finance	2	32	3	Elective
	Credits Requirement		≥8 credits			
Required Components	Academic Activities		1		1~4	
	Professional Practice		1		1~4	
	Credits Requirement		2 credits			
Dissertation Works	Capstone presentation		End of third term			
	Process inspection		The beginning of fifth term			
	Review of scientific research results (repetition rate detection, anonymous review, oral defense)		The beginning of sixth term			
Total Credits			≥40credits			

五、必修环节

（一）学术讲座（1 学分）

产业经济学专业来华留学硕士研究生在校期间必须参加至少 10 场由研究生院、学院或学科组织或认可的 专题讲座、学术报告或研究生论坛。

（二）专业创新实践（1 学分）

产业经济学专业硕士研究生专业创新实践包括学术研讨班、科学研究、专业实践、学科竞赛、社会服务等活动，应按要求从 5 项活动中至少选择 4 项完成，详情见《北京工商大学全日制学术学位硕士研究生培养工作管理规定》。

V. REQUIRED COMPONENTS (2 CREDITS)

1.Academic lectures (1 credit)

International master’s students in Industrial Economics are required to attend at least 10 seminars, academic lectures, or graduate forums organized or recognized by the Graduate School, the college, or the discipline program during their period of study.

2.Professional innovation practice (1 credit)

Professional innovation practice for master’s students in Industrial Economics includes activities such as academic workshops, scientific research, professional practice, disciplinary competitions, and social services. Students are required to complete at least 4 out of the 5 categories of activities as specified. For details, please refer to Regulations on the Training of Full-Time Academic Master’s Degree Students of Beijing Technology and Business University.

六、培养环节及学位论文

产业经济学专业来华留学硕士研究生培养过程中相关环节及学位论文工作包括开题答辩、中期检查、科研成果审核，论文文字重复率检测、匿名评审、答辩。具体要求详见《北京工商大学来华留

学研究生博士、硕士学位授予工作细则》等。

VI. TRAINING COMPONENTS AND REQUIREMENTS FOR THE DISSERTATION

The training procedures and dissertation work for international master's students in Industrial Economics include thesis proposal defense, mid-term progress review, review of research achievements, similarity check for plagiarism, anonymous review, and final thesis defense. For specific requirements, please refer to the Detailed Rules for the Conferral of Doctoral and Master's Degrees to International Graduate Students of Beijing Technology and Business University.

七、教学大纲

课程教学大纲内容包括课程编码、课程名称、学时、学分、教学目标、教学方式、考核方式、 适用学科专业、先修课程、主要教学内容和学时分配、参考文献等。

VII. PROGRAM SYLLABUS

The content of the program syllabus includes the course code, course name, class hours, credits, teaching objectives, teaching methods, assessment methods, applicable disciplines, prerequisite courses, main teaching content and class hours allocation, references, etc.

八、授课语言

英语

VIII. LANGUAGE OF INSTRUCTION

English

国际商务(025400)硕士留学研究生培养方案

Training Program for International Graduate Students Master of International Business (025400)

授予学位类别：国际商务

专业学位类别代码及名称：0254 国际商务

制订单位：经济学院

一、培养目标

国际商务专业培养胜任在涉外企事业单位 、政府部门和社会组织从事国际商务经营运作与管理工作的高层次、应用型、复合型商务专门人才。

国际商务专业来华留学硕士研究生应当熟悉中国历史、地理、社会、经济等中国国情和文化基本知识，了解中国政治制度和外交政策，理解中国社会主流价值观和公共道德观念，形成良好的法治观念和道德意识。

I. TRAINING OBJECTIVES

The International Business Program (MIB Program) aims to cultivate high-level, application-oriented, interdisciplinary business professionals who are competent to engage in international business operations and management in foreign-related enterprises and public institutions, government departments, and social organizations.

Students in International Business studying in China shall be familiar with basic knowledge of China's national conditions and culture, including Chinese history, geography, society, and economy; understand China's political system and foreign policy; recognize the mainstream values and public ethics of Chinese society; and develop a sound awareness of the rule of law and moral responsibility.

二、类别领域简介与研究方向

国际商务专业于 2010 年获批专业硕士学位授予权，2014 年开始同时招收国内生和留学生。本专业现有专任教师 14 人，其中教授 2 人，副教授 6 人，博士生导师 2 人，硕士生导师 11 人。国际商务专业硕士学位教育以培养高层次的复合型应用人才为重点，服务对象包括从事传统的货物与服务贸易企业，从事新兴制造业、现代服务业、跨国直接投资和外包的企业，以及政府管理部门、行业协会、贸易与投资促进机构、教育科研机构、国际组织等。本专业学位突出学校和行业培养的紧密结合，强调以国际化、开放式的教育体系和多元化的师资配备为基本特色，注重创新精神和实践能力的培养。

本专业学位类别主要研究方向有：数字贸易；共建“一带一路”国际商务；跨国公司经营；国际大宗商品贸易。各研究方向具体内容如下。

（一）数字贸易：聚焦数字技术赋能的跨境贸易创新、数据跨境流动与治理、数字规则构建、跨

境电商生态优化及数字服务贸易高质量发展，培养学生掌握运营逻辑、数据合规管理及国际规则，具备优化决策、应对风险、推动转型的能力。研究内容包括跨境电商政策评估、数据流动规则与保障、数字服务贸易的价值创造与国际竞争力提升。

（二）共建“一带一路”国际商务：聚焦共建国家商务环境、贸易投资规则、跨境合作及风险防控，培养学生掌握经济政策、文化习俗、市场需求等知识，具备国际商务谈判、项目运营、跨文化沟通能力。研究内容包括贸易便利化措施优化、基础设施互联互通影响、跨境电商发展路径、国际产能合作的法律与金融支持、供应链协同管理等。

（三）跨国公司经营：聚焦全球战略布局、跨境运营、跨文化协作、风险防控和可持续发展，培养学生掌握组织架构、战略决策、海外市场拓展及跨文化管理技巧，具备制定跨国策略、优化运营、应对风险的能力。研究内容包括全球价值链重构与升级、海外市场进入模式评估、数字化转型下的供应链韧性建设。

（四）国际大宗商品贸易：聚焦市场变动分析、供应链韧性与安全、风险管理、绿色转型下的贸易创新，培养学生掌握贸易逻辑、供应链优化、风险对冲及可持续贸易理念，具备分析趋势、应对风险的能力。研究内容包括贸易新趋势分析、绿色贸易标准与认证、合规管理与国际商品贸易仲裁实务。

II. DISCIPLINE INTRODUCTION AND RESEARCH DIRECTION

MIB Program was authorized to confer the professional master’s degree in 2010 and began enrolling both domestic and international students in 2014. The program currently has 14 full-time faculty members, including 2 professors, 6 associate professors, 2 doctoral supervisors, and 11 master’s supervisors. The education for the professional master’s degree in International Business focuses on cultivating high-level, interdisciplinary, application-oriented professionals. It serves enterprises engaged in traditional trade in goods and services, enterprises involved in emerging manufacturing, modern services, cross-border direct investment and outsourcing, as well as government administrative departments, industry associations, trade and investment promotion agencies, educational and research institutions, and international organizations. The program emphasizes close integration between university-based education and industry-oriented training. It features an internationalized and open educational system, a diversified faculty structure, and the cultivation of innovative spirit and practical competence.

The main research directions of this professional degree program are: Digital Trade; International Business under the Joint Building of the Belt and Road; Multinational Enterprise Operations; and International Bulk Commodity Trade. The specific contents of each research direction are as follows.

1. Digital Trade

This direction focuses on cross-border trade innovation empowered by digital technologies, cross-border data flows and governance, the development of digital trade rules, optimization of the cross-border e-commerce ecosystem, and high-quality development of digital services trade. It aims to enable students to master operational mechanisms, data compliance management, and international rules, and to develop the ability to optimize decision-making, respond to risks, and promote transformation. Research topics include policy evaluation of cross-border e-commerce, rules and safeguards for data flows, value

creation in digital services trade, and the enhancement of international competitiveness.

2. International Business under the Joint Building of the Belt and Road

This direction focuses on the business environment, trade and investment rules, cross-border cooperation, and risk prevention and control in Belt and Road partner countries. It aims to enable students to acquire knowledge of economic policies, cultural customs, and market demand, and to develop capabilities in international business negotiation, project operation, and cross-cultural communication. Research topics include optimization of trade facilitation measures, the impact of infrastructure connectivity, development paths for cross-border e-commerce, legal and financial support for international industrial-capacity cooperation, and collaborative supply chain management.

3. Multinational Enterprise Operations

This direction focuses on global strategic deployment, cross-border operations, cross-cultural collaboration, risk prevention and control, and sustainable development. It aims to enable students to master organizational structures, strategic decision-making, overseas market expansion, and cross-cultural management skills, and to develop the ability to formulate multinational strategies, optimize operations, and respond to risks. Research topics include restructuring and upgrading of global value chains, evaluation of overseas market entry modes, and the development of supply chain resilience under digital transformation.

4. International Bulk Commodity Trade

This direction focuses on analysis of market fluctuations, supply chain resilience and security, risk management, and trade innovation under green transformation. It aims to enable students to master trade logic, supply chain optimization, risk hedging, and concepts of sustainable trade, and to develop the ability to analyze trends and respond to risks. Research topics include analysis of new trends in trade, green trade standards and certification, compliance management, and arbitration practice in international commodity trade.

三、学制和学习年限

国际商务专业来华留学硕士研究生学制　2 年，最长修业年限 4 年。不得申请提前毕业。

III. LENGTH OF STUDY

The normal study duration for this program is two years. And the maximum length is four years. Early graduation shall not be permitted.

四、课程设置与学分要求

（一） 课程设置

国际商务专业来华留学硕士研究生所修课程分为必修课和选修课，总学分不得少于 45 学分。学分组成为：必修课程共计 30 学分，其中公共基础课程 14 学分，学科基础课程 4 学分，专业课程 12 学分；选修课程在导师指导下选择教学计划所列的选修课程不少于 8 学分。

在完成以上规定学分的基础上，研究生还可在导师指导下选修校内其它学院开设的研究生课程。

在完成课程学习同时，还需获得必修环节 7 学分。

（二） 课程考核

培养计划中所有课程和必修环节均要进行考核，考核通过后方能取得学分。研究生课程考核分为考试和考查两种方式，学生选修的学位课程一律闭卷考试，非学位课程可采用考试或考查方式。

研究生课程考核成绩按百分制评定，60 分为合格。课程考核成绩由平时成绩和期末成绩组成，平时成绩占总成绩的 30%—50%。平时成绩可采用课程论文、平时测验、读书报告、作业成绩、课堂讨论等方式进行。

必修课考试不合格须申请随下一年级重修，不单独进行补考；选修课不合格允许随下一年级重考或经导师同意改选课程。

重修或重考合格的课程可以取得学分，经重修或重考仍不合格者，不能参加学位论文答辩。研究生在修满规定课程学分后方可参加学位论文答辩。

国际商务专业来华留学硕士研究生毕业时汉语言能力应当至少达到《国际汉语能力标准》三级水平。

表 1 研究生课程类别及构成说明

课程类别	学分要求	课程类别	学分要求
公共课	14	基础课	4
专业课	12	选修课	≥8
必修环节	7	总学分	≥45
学分说明		总学分 = 课程总学分 + 必修环节学分	

表 2 专业学位硕士研究生课程设置及学分要求

类别	课程编码	课程名称	学分	学时	开课学期	是否必修
公共课	025400IMG2001	中国概况	2	32	1	必修
	025400IMG4002	汉语（一级）	4	64	1	必修
	025400IMG4003	汉语（二级）	4	64	2	必修
	025400IMG4004	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	025400IMJ2002	国际商务	2	32	1	必修
	025400IMJ2003	经济学分析与应用	2	32	1	必修
	应修		4 学分			
专业课	025400IMZ2001	国际贸易政策与实务	2	32	1	必修
	025400IMZ2002	国际投资与跨国企业管理	2	32	2	必修
	025400IMZ2003	国际金融理论与实务	2	32	2	必修
	025400IMZ2004	国际商务谈判	2	32	1	必修
	025400IMZ2005	国际商法	2	32	2	必修
	025400IMZ2006	研究方法与论文写作	2	32	2	必修
	应修		12 学分			
选修课	025400IMX2001	“一带一路”专题研讨	2	32	2	选修

	025400IMX2002	跨文化沟通	2	32	1	选修
	025400IMX2003	数字贸易专题研讨	2	32	2	选修
	025400IMX2004	电子商务产业研究	2	32	2	选修
	025400IMX2006	中国对外贸易专题	2	32	1	选修
	025400IMX2007	国际市场营销	2	32	2	选修
	025400IMX2008	国际结算专题	2	32	2	选修
	025400IMX2009	数字金融与供应链金融专题	2	32	1	选修
	应修		≥8 学分			
课程总学分要求						

说明：同等学力或跨专业录取的研究生须在导师指导下补修相应专业本科阶段主干课程 2 门，须参加本科课程考试且成绩合格，不计学分。

IV. THE CURRICULUM AND CREDITS REQUIREMENT

1. Curriculum

Courses for international master's students in International Business are divided into compulsory courses and elective courses. The total number of credits shall be no fewer than 45. The credit structure is as follows: compulsory courses account for 30 credits in total, including 14 credits for general courses, 4 credits for foundation courses, and 12 credits for specialized courses. Under the guidance of their supervisors, students shall select no fewer than 8 credits of elective courses from the teaching plan.

After completing the required credits specified above, graduate students may also, under the guidance of their supervisors, take graduate courses offered by other schools or colleges within the university.

In addition to completing coursework, students must also obtain 7 credits from required training components.

2. Course Assessment

All courses and required training components specified in the training plan shall be assessed. Credits may be obtained only after the assessment is passed. Graduate course assessment is conducted in two forms: examinations and course-based assessments. Degree courses selected by students shall be assessed through closed-book examinations, while non-degree courses may be assessed through either examinations or course-based assessments.

Graduate course grades shall be evaluated on a 100-point scale, with 60 as the passing mark. Course grades consist of regular performance and final assessment results, with regular performance accounting for 30%–50% of the total grade. Regular performance may be evaluated through course papers, quizzes, reading reports, assignments, classroom discussions, and other forms.

Students who fail a compulsory course examination must apply to retake the course with the next cohort; no separate make-up examination shall be arranged. Students who fail an elective course may retake the examination with the next cohort or, with the approval of their supervisor, select another course.

Credits may be obtained for courses passed after retaking the course or re-sitting the examination.

Students who still fail after retaking or re-sitting shall not be eligible to participate in the thesis defense. Graduate students may participate in the thesis defense only after completing the required course credits.

Upon graduation, international master's students in International Business shall attain at least Level III of the International Chinese Language Proficiency Standards.

Table 1 Description of Postgraduate Course Category and Composition

Course Classification	Credit Requirement	Course Classification	Credit Requirement
Public Courses	14	Basic Courses	4
Discipline Core Courses	12	Optional Courses	≥8
Required Components	7	Total Credits	≥45
Credit description	Total credits = Course credits + Required Components		

Table 2 Curriculum Setting and Credits Requirements

Course Classification	Course Code	Course Title	Credits	Course Hours	Semester	Compulsory/ Elective
Public Courses	025400IMG2001	Chinese Culture	2	32	1	Compulsory
	025400IMG4002	HSK (Level I)	4	64	1	Compulsory
	025400IMG4003	HSK (Level II)	4	64	2	Compulsory
	025400IMG4004	HSK (Level III)	4	64	3	Compulsory
	Credits Requirement		14 Credits			
Basic Courses	025400IMJ2002	International Business	2	32	1	Compulsory
	025400IMJ2003	Economic Analysis and Application	2	32	1	Compulsory
	Credits Requirement		4 Credits			
Discipline Core Courses	025400IMZ2001	International Trade Policy and Practice	2	32	1	Compulsory
	025400IMZ2002	International Investment and Transnational Enterprises Management	2	32	2	Compulsory
	025400IMZ2003	International Finance and Practice	2	32	2	Compulsory
	025400IMZ2004	International Business Negotiation	2	32	1	Compulsory
	025400IMZ2005	International Business Law	2	32	2	Compulsory
	025400IMZ2006	Research Methodology and Thesis Writing	2	32	2	Compulsory
	Credits Requirement		12 Credits			
Elective	025400IMX2001	Seminar on the "Belt and	2	32	2	Elective

Courses		Road Initiative”				
	025400IMX2002	Intercultural Communication	2	32	1	Elective
	025400IMX2003	Seminar on Digital Trade	2	32	2	Elective
	025400IMX2004	E-commerce Industry Research	2	32	2	Elective
	025400IMX2006	China’s Foreign Trade	2	32	1	Elective
	025400IMX2007	International Marketing	2	32	2	Elective
	025400IMX2008	International Settlement	2	32	2	Elective
	025400IMX2009	Lectures On Digital Finance & Supply Chain Finance	2	32	1	Elective
	Credits Requirement		≥8 Credits			
Total Credits			≥38 Credits			

Note: Graduate students admitted on the basis of equivalent academic qualifications or from a different academic background must, under the guidance of their supervisors, take two corresponding core undergraduate courses in the relevant discipline. They must sit for and pass the undergraduate course examinations. These courses do not carry graduate credits.

五、必修环节

（一） 学术活动（1 学分）

国际商务专业来华留学硕士研究生修学期间参加行业前沿讲座或学术会议不少于 5 场，或参加学科竞赛不少于 1 次，经导师审核认定完成创新实践活动。

（二） 专业实践（6 学分）

国际商务专业来华留学硕士研究生应与导师一起制订并填写《北京工商大学全日制专业学位硕士研究生专业实践计划表》，提交实践学习计划。研究生在导师指导下完成专业实践或课题研究。专业实践时间不少于 6 个月，实践结束提供相关证明和接受单位鉴定，撰写不少于 5000 字的实践学习总结报告；或课题研究不少于 96 学时，撰写不少于 5000 字的案例研究/专题调研报告。

V.REQUIRED COMPONENTS

1. Academic Activity (1 credit)

During the study period of MIB program, students should participate in more than 5 lectures on the frontier topic of the industry or academic conference, or participate in the discipline competition for more than 1 time. The practice activities should be checked and approved by the supervisor.

2. Professional Practice (6 credits)

Graduate students should work out and fill in the "Professional Practice Schedule for Full-time Professional Master Degree Students of Beijing Technology and Business University" together with their

supervisors, and submit the practical learning plan. Graduate students should complete professional practice or project research under the guidance of supervisor. The internship duration should be no less than 6 months. Relevant certificates and unit identification should be provided after the practice. A practice report with no less than 5000 words should be submitted. Students who choose survey/case study, should work no less than 96 class hours and write a survey/case study report with no less than 5000 words.

六、培养环节及学位论文

国际商务专业硕士研究生培养过程中相关环节及学位论文工作包括开题答辩 、中期检查、科研成果审核，论文文字重复率检测、匿名评审、答辩。具体要求详见《北京工商大学专业学位硕士研究生学位论文管理办法》、《北京工商大学研究生学位论文文字重复率检测管理办法》、《北京工商大学博士、硕士学位授予办法》、《北京工商大学博士、硕士在研期间创新成果要求》。国际商务专业硕士学位论文的形式可以是专题研究类论文、案例分析、调研报告等多种形式。

VI. TRAINING COMPONENTS AND REQUIREMENTS FOR THE DISSERTATION

The relevant training procedures and degree thesis work for master's students in International Business include thesis proposal defense, mid-term review, review of research achievements, similarity check of the thesis text, anonymous review, and thesis defense.

Specific requirements shall be implemented in accordance with the Administrative Measures of Beijing Technology and Business University for Professional Master's Degree Theses, the Administrative Measures of Beijing Technology and Business University for Similarity Checks of Graduate Degree Theses, the Measures of Beijing Technology and Business University for the Conferral of Doctoral and Master's Degrees, and the Requirements of Beijing Technology and Business University for Innovative Achievements of Doctoral and Master's Students During Their Period of Study.

The degree thesis for the professional master's degree in International Business may take various forms, including thematic research papers, case analyses, and research reports.

七、教学大纲

课程教学大纲内容包括课程编码、课程名称、学时、学分、教学目标、教学方式、考核方式 、适用专业学位（领域）、先修课程、主要教学内容和学时分配、参考文献等。

VII. PROGRAM SYLLABUS

The content of the program syllabus includes the course code, course name, class hours, credits, teaching objectives, teaching methods, assessment methods, applicable disciplines, prerequisite courses, main teaching content and class hours allocation, references, etc.

八、授课语言

英文

VIII. LANGUAGE OF INSTRUCTION

English

商学院

工商管理(125100)硕士留学研究生培养方案

Training Program for International Graduate Students Master of Business Administration

授予学位类别：工商管理

专业学位类别代码及名称：1251 工商管理

制订单位：商学院

一、培养目标

国际工商管理硕士（IMBA）留学生培养应立足全球商业能力与跨文化素养双提升，以服务中外经贸合作与跨国企业发展对高层次国际管理人才的需求为导向，坚持立德树人根本任务，依托我校商科国际化办学优势，系统传授工商管理学基本知识与原理，帮助学生深入了解中国国情与商业实践，科学定位培养目标，突出中外融通与实践育人特色，着力培养德智体美劳全面发展，兼具全球视野、新兴产业适应力与主导力的跨国管理者、国际商界领袖、创新创业开拓者及行业专门人才，打造符合国家对外开放战略、彰显我校国际化办学特色的高水平研究型大学国际工商管理硕士留学生培养体系。

I. TRAINING OBJECTIVES

The training of international students in the International Master of Business Administration (IMBA) program should be based on the dual improvement of global business capabilities and cross-cultural literacy. Oriented towards meeting the demand for high-level international management talents from Sino-foreign economic and trade cooperation and the development of multinational enterprises, it adheres to the fundamental task of fostering virtue through education. Relying on the international education advantages of our university's business discipline, it systematically imparts the basic knowledge and principles of business administration, helps students gain an in-depth understanding of China's national conditions and business practices, scientifically positions the training objectives, and highlights the characteristics of Sino-foreign integration and practice-based education. It strives to cultivate transnational managers, international business leaders, pioneers of innovation and entrepreneurship, and industry-specific professionals with all-round development in morality, intelligence, physical education, aesthetics and labor education, as well as global vision, adaptability and leadership in emerging industries. Ultimately, it aims to build an IMBA international student training system for high-level research universities that is in line with the national opening-up strategy and embodies the international education characteristics of our university.

二、类别领域简介与研究方向

2003 年我校获批工商管理硕士（MBA）专业学位授予资格；2010 年顺利通过全国 MBA 教育指导委员会合格评估，2021 年正式设立国际工商管理硕士（IMBA）留学生专项培养项目。依托北京工

商大学深厚办学积淀与商学院工商管理一级学科的综合优势，本项目逐步形成“根植本土商业实践、面向全球经贸合作、深化产教融合育人”的特色培养模式，在组织管理、财务会计、供应链管理等研究领域具备突出的学科优势与行业影响力。

本专业学位类别坚持经典专业的稳定性与专业发展的前沿性相结合，主要研究方向有：组织与运营管理、财务与会计、供应链管理，为留学生提供了广泛的职业发展选择空间。

主要研究方向及其内容：

（一） 组织与运营管理

本方向聚焦全球商业环境下的组织行为与运营管理前沿问题，深度融合中国企业国际化发展实践，系统讲授组织理论、跨文化人力资源管理、全球运营管理、数字化转型等核心内容，培养留学生运用现代管理工具解决跨国企业组织设计、跨文化团队管理、全球流程优化等实际问题的能力。

（二） 财务与会计

本方向依托我校会计学国家级特色专业和财务管理北京市重点学科优势，立足国际会计准则与中国会计制度的融合发展趋势，系统传授国际财务会计、管理会计、跨国公司理财、审计与内部控制、资本运作等专业知识，培养留学生具备跨国企业财务管理、国际投融资决策、风险管控及财务报告分析能力。

（三） 供应链管理

本方向发挥我校在流通经济与物流供应链领域的传统学科积淀优势，紧密对接全球供应链重构与国家供应链安全战略，系统讲解全球供应链战略管理、国际物流与采购、供应链数字化、绿色供应链与可持续发展等核心内容，培养留学生具备全球供应链规划、运营与优化能力。

II. DISCIPLINE INTRODUCTION AND RESEARCH DIRECTION

In 2003, our university was granted the qualification to confer the Master of Business Administration (MBA) professional degree. In 2010, it successfully passed the qualification evaluation by the National MBA Education Steering Committee. In 2021, the International Master of Business Administration (IMBA) specialized training program for international students was officially established. Relying on the profound educational heritage of Beijing Technology and Business University (BTBU) and the comprehensive advantages of the first-level discipline of Business Administration in the Business School, this program has gradually formed a distinctive training model of "rooted in local business practices, oriented towards global economic and trade cooperation, and deepening industry-education integration in talent cultivation". It possesses outstanding disciplinary advantages and industry influence in research fields such as organizational management, financial accounting, and supply chain management.

This professional degree category adheres to the combination of the stability of classic disciplines and the cutting-edge nature of professional development. Its main research directions include: Organization and Operations Management, Financial Accounting, and Supply Chain Management, providing international students with a wide range of career development options.

Main Research Directions and Contents

1. Organization and Operations Management

This direction focuses on cutting-edge issues of organizational behavior and operations management in the global business environment, deeply integrates the international development practices of Chinese enterprises, and systematically teaches core contents such as organizational theory, cross-cultural human resource management, global operations management, and digital transformation. It cultivates international students' ability to use modern management tools to solve practical problems in multinational enterprises, including organizational design, cross-cultural team management, and global process optimization.

2. Financial Accounting

Relying on the advantages of our university's national characteristic specialty of Accounting and Beijing key discipline of Financial Management, this direction is based on the integrated development trend of International Financial Reporting Standards (IFRS) and the Chinese accounting system. It systematically imparts professional knowledge such as international financial accounting, management accounting, multinational corporate finance, auditing and internal control, and capital operation. It equips international students with capabilities in multinational corporate financial management, international investment and financing decision-making, risk management and control, and financial report analysis.

3. Supply Chain Management

Leveraging our university's traditional disciplinary heritage advantages in the field of circulation economy and logistics supply chain, this direction closely aligns with global supply chain restructuring and the national supply chain security strategy. It systematically explains core contents such as global supply chain strategic management, international logistics and procurement, supply chain digitalization, green supply chain, and sustainable development. It cultivates international students' ability to plan, operate and optimize global supply chains.

三、学制和学习年限

采用全日制学习方式，学制为 2 年，最长修业年限不超过 4 年。

III. LENGTH OF STUDY

A full - time study is adopted. The normal study duration for this program is two years. And the maximum length is four years.

四、课程设置与学分要求

表 1 留学研究生总学分要求

课程类别	学分要求	课程类别	学分要求
公共课	14	专业课	16
基础课	6	毕业论文	8
必修环节	4	总学分	≥48
学分说明	1．必修环节为专业实践，学时不少于 3 个月 64 学时，以 4 学分计，具体要求见六、必修环节。 2．攻读本专业学位的留学研究生总学分不得少于 48 学分。		

表 2 留学研究生课程设置及学分要求

类别	课程编码	课程名称	学分	学时	开课学期	是否必修
公共课	125100IMG2001	中国概况	2	32	1	必修
	125100IMG4002	汉语（一级）	4	64	1	必修
	125100IMG4003	汉语（二级）	4	64	2	必修
	125100IMG4004	汉语（三级）	4	64	3	必修
	公共课应修		14 学分			
基础课	125100IMJ2001	商业和经济研究中的统计方法	2	32	2	必修
	125100IMJ2002	管理学	2	32	1	必修
	125100IMJ2003	会计学	2	32	1	必修
	基础课应修		6 学分			
专业课	125100IMZ2001	人力资源管理	2	32	1	必修
	125100IMZ2002	市场营销学	2	32	2	必修
	125100IMZ2003	生产运作管理	2	32	2	必修
	125100IMZ2004	战略管理	2	32	2	必修
	125100IMZ2005	组织行为学与领导力	2	32	2	必修
	125100IMZ2006	公司财务	2	32	1	必修
	125100IMZ2009	创新创业管理	2	32	2	必修
	125100IMZ2008	物流与供应链管理	2	32	2	必修
专业课应修			16 学分			
毕业论文 硕士学位论文			8	128	4	必修
课程总学分要求			≥44 学分			

IV. THE CURRICULUM AND CREDITS REQUIREMENT

Table 1 Description of total credits

Course Classification	Credits Requirement	Course Classification	Credits Requirement
Public Course	14	Discipline Core Course and Graduation thesis	30
Compulsory Part	4	Total Credits	≥48
Credit description	1. The compulsory part is a professional practice. The duration of the professional practice is not less than 3months and 64hours. It is with 4 credits. See “6. Compulsory Part” for more details. 2. The total number of credits shall not be less than 56credits.		

Table 2 Curriculum and credit requirements

Course Classification	Course Code	Course Title	Credits	Course Hours	Semester	Compulsory /Elective
Public Course	125100IMG2001	Chinese Culture	2	32	1	Compulsory
	125100IMG4002	HSK（LevelI）	4	64	1	Compulsory
	125100IMG4003	HSK（Level II）	4	64	2	Compulsory
	125100IMG4004	HSK（Level III）	4	64	3	Compulsory
	Credits Requirement		14 Credits			
Discipline Core Course（Theory and Methods Course）	125100IMJ2001	Statistical Methods Used in Business and Economic Research	2	32	2	Compulsory
	125100IMJ2002	Management	2	32	1	Compulsory
Discipline Core Course（Organization and Operations Management）	125100IMZ2001	Human Resource Management	2	32	1	Compulsory
	125100IMZ2002	Marketing Management	2	32	2	Compulsory
	125100IMZ2003	Operation and Production Management	2	32	2	Compulsory
	125100IMZ2004	Strategic Management	2	32	2	Compulsory
	125100IMZ2005	Organizational Behavior and Leadership	2	32	2	Compulsory
Discipline Core Course（Finance and Accounting）	125100IMJ2003	Accounting	2	32	1	Compulsory
	125100IMZ2006	Corporate Finance	2	32	1	Compulsory
	125100IMZ2009	Innovation and Entrepreneurship Management	2	32	2	Compulsory
Discipline Core Course（Supply Chain Management）	125100IMZ2008	Logistics and Supply Chain Management	2	32	2	Compulsory
Credits Requirement（Discipline Core Course）			22 Credits			
Graduation thesis Master Thesis			8	128	4	Compulsory
Total Credits			≥44 Credits			

五、必修环节

必修环节为 4 学分的专业实践，安排在第 3 学期，由导师指导调研，根据本专业的前沿研究方向进行选题，完成学时不少于 3 个月 64 学时的研究专题实践。学生需要上交实践报告，考核合格后获得学分。

V. REQUIRED COMPONENTS

There is a compulsory professional practice with 4 credit points. This professional practice is arranged in the third semester guided by a supervisor. The topic selection is to be aligned with cutting-edge research directions. The duration of this practice should be no less than 3 months and 64 hours. The student is required to submit a report for this practice, and the credit points will be granted if the report passes the assessment.

六、培养环节及学位论文

学位论文是研究生培养工作的重要环节。通过学位论文工作，培养研究生从事科学研究和独立工作能力，培养分析、综合能力，发现问题和解决问题的能力，培养实事求是的工作作风和严谨踏实的治学态度。

（一）学位论文选题

硕士学位论文选题应直接来源于工商管理学科领域生产实际或者具有明确的工商管理学科背景和应用价值，密切结合所从事的企业面临的技术改造、革新、引进等技术难题或科研攻关项目。

（二）学位论文开题

学位论文工作应在导师指导下于第三学期开始，在查阅文献、调查研究的基础上做好开题报告。开题报告主要包括立题意义、文献综述初步、研究计划及目标和拟解决方案等。开题报告应在学科范围内公开宣讲，并广泛征求意见。

（三）学位论文中期检查

学位论文中期检查应在第四学期完成。

（四）学位论文内容和形式

学位论文必须在导师指导下由硕士生本人独立完成。论文要有一定的工作量（不少于 4 周的具体工作，并满足研究生院关于毕业论文的具体要求）。在论文题目确定后，用于论文工作的时间为半年。论文要求资料可靠、理论正确、思路清晰，对所研究专业和方向的最新成就有所了解，对所研究的课题有新的见解，并在该研究方向上有新的研究成果。论文书写必须符合《北京工商大学研究生学位论文格式要求》。

（五）学位论文如用英文撰写，必须要有中文摘要。

（六）论文答辩与学位申请

论文评审实行匿名评阅制度。所有研究生学位论文必须经过答辩，具体要求详见《北京工商大学专业学位硕士研究生学位论文管理办法》

VI. TRAINING COMPONENTS AND REQUIREMENTS FOR THE DISSERTATION

Degree thesis is an important part of graduate cultivation. Through the thesis, the graduate student

should be trained to do scientific research and work independently. The analysis and comprehensive ability, and the ability of finding and solving problems, cultivation of seek truth from facts work style and rigorous practical attitude should be cultured.

1. Thesis topic selection

The topic selection of the degree thesis should be directly related to practical applications of business administration, or technical problems or scientific research projects that have a clear business administration background and application values.

2. Research proposal

The thesis work should be started in the third semester under the guidance of the supervisor. The student should finish a research proposal based on the literature review and preliminary investigation and study. The research proposal should include the significance of the research, literature review, research plan and target and proposed solutions. The research proposal should be preached in the range of subjects and solicit opinions extensively.

3.Mid-term examination of thesis

The mid-term examination of the thesis should be completed in the fourth semester.

4.Content and form of thesis

The thesis must be finished by the student independently under the guidance of the supervisor. The thesis should have a certain amount of workload. The thesis's working time, after the topic is determined, is generally half a year. The thesis is required to be with reliable information, correct theory, clear thinking, understanding of state-of-the-art research direction, new insights into the research direction, and new research achievement. Thesis writing must be consistent with the "Beijing Technology and Business University master's degree thesis writing rules".

5.If the thesis is written in English, it must have a Chinese abstract.

6.Thesis defense and degree application

The evaluation of the thesis will be conducted in a "double-blind" manner. The thesis must go through the defense process. More details can be found in "Working rules of University Master's degree awarded by Beijing Technology and Business University".

七、教学大纲

课程教学大纲内容包括课程编码、课程名称、学时、学分、教学目标、教学方式、考核方式、适用学科专业、先修课程、主要教学内容和学时分配、参考文献等。

VII. PROGRAM SYLLABUS

The content of the course syllabus includes the course code, course name, class hours, credits, teaching objectives, teaching methods, assessment methods, applicable disciplines, prerequisite courses, main teaching content and class hours allocation, references, etc.

八、授课语言

英语

VIII. LANGUAGE OF INSTRUCTION

English

食品与健康学院

食品科学与工程(083200)博士留学研究生培养方案
Training Program for International Graduate Students
Doctor Program for Food Science and Engineering (083200)

授予学位类别：工学博士学位

一级学科代码及名称：0832 食品科学与工程

制订单位：食品与健康学院

一、培养目标

熟悉中国历史、地理、社会、经济等中国国情和文化基本知识，了解中国政治制度和外交政策，理解中国社会主流价值观和公共道德观念，形成良好的法治观念和道德意识。培养掌握食品科学与工程领域的发展动态，具有国际化思维与视野，具有较强的创新意识和创新能力，掌握食品科学与工程领域坚实的基础理论和技术基础，具备践行健康中国行动与大食物观，独立创新从事食品相关领域科学研究、教学、生产开发与管理的高层次专门人才。

I. TRAINING OBJECTIVES

Be familiar with China's history, geography, society, economy and other basic knowledge of China's national conditions and culture, understand China's political system and foreign policy, understand China's mainstream social values and public morality, and form a good concept of rule of law and moral awareness. It is our mission to empower tomorrow’s senior professionals in the field of food science and engineering by giving our students rewarding and fruitful learning experiences. Our students are nurtured to understand the developments of food science and engineering, build a solid foundation on basic theoretical knowledge, keep consciousness of innovation with strong innovation ability, especially the ability of exploiting new research fields and development orientations. All students are expected to be knowledgeable and wise enough to independently perform scientific research and teaching tasks, possess the ability to practice the Healthy China Action and the Great Food Concept, make collaborative discoveries and inventions, and become the high-level talents of scientific research, teaching, production, development and management in the food related-fields.

二、学科简介与研究方向

食品科学与工程学科源于原北京轻工业学院 1958 年设立的发酵工程专业和原北京商学院 1994 年设立的食品科学与工程专业。本学科现有“食品科学与工程”一级学科硕士和博士学位授权点，并设有博士后科研流动站，是北京市重点学科、北京市高精尖建设学科、国家级特色专业建设点。通过 IFT、IUFoST 两个食品专业权威国际认证，入选国家首批一流专业建设计划和国家首批“卓越农林人才教育培养计划”。学科立足国家战略需求和国际食品科学发展前沿，重点在食品添加剂与食品安全、农产

品加工与贮藏工程、食品科学、食品营养等方面开展具有战略性、前瞻性的基础和应用创新研究，为推动中国传统食品工业化及产业升级提供科学依据和关键技术。

目前，学科有如下 4 个主要的研究方向：

（一）食品添加剂与食品安全

主要研究食品添加剂绿色制造技术、食品添加剂构效关系、食品安全监测与控制等。该方向在含硫食品香料、手性香料、天然肉味香精、食品风味、天然食用色素、食品乳化剂、食品安全监测、食品中有毒有害成分检测新技术等方面特色突出。

（二）农产品加工及贮藏工程

主要研究粮油、畜产、乳制品和果蔬的深加工及综合利用、特色资源研究开发等，并结合农产品加工生产实际问题,开展产学研合作，提升我国农产品加工价值链。

（三）食品科学

以食品微生物学和食品酶学为基础，在分子水平上研究食品组分的化学组成、结构、性质，研究微生物和酶制剂在加工过程中对食品品质影响的基本规律；挖掘功能微生物资源，探讨特种酶催化的作用机制，研究食品应用过程的适应性。

（四）食品营养与健康

主要研究食品中各种主要营养素及功能成分的特性，营养作用及量效关系，解决其加工技术和营养成分的保留及控制等关键技术问题。聚焦不同年龄人群代谢变化过程、机理和特点，重点研究和解决食品中蛋白质，脂肪，低聚糖类等营养成分与人体健康的相关性。

II. DISCIPLINE INTRODUCTION AND RESEARCH DIRECTION

The Food Science discipline was merged from the Fermentation Engineering of former Beijing Technology College and Food Science and Engineering of former Beijing Business College. The old generation scholars represented by Peisong Jin and Guoxiong Yao made significant contributions in developing Food Science. Over 50 years of construction and historical accumulation, Food Science has boosted research abilities. Food Science is dominated by innovation, characterized by practical teaching and assisted by scientific personnel training strategy. Food Science is committed to cultivating the highest level of excellence with both advanced theories and practical skills, with both professional proficiency and personal integrity. The PhD graduates are engaged in research and teaching in industry, higher education, and research institutions.

There are four directions for the current Doctoral Program of Food science and Engineering:

1. Food Additives and Food Safety.

By mainly focusing on the research topics such as green manufacturing technology of food additives, the structure-effect relationship of food additives, and food safety monitoring and control, etc., this direction offers distinctive characteristics in sulfur-containing food flavors and spices, chiral flavors, natural meaty aromas, food flavors, natural edible pigment, food enzymes, and food emulsifiers, etc.

2. Processing and Storage of Agriculture Products.

This direction mainly focuses on the deep processing and comprehensive utilization of grain, oil,

livestock products, dairy products, fruits and vegetables, research and development of characteristic resources, quality and safety testing technology for agricultural products, etc., as well as pays attentions to the industry-university-research cooperation in solving practical problems in the production and processing of agricultural products, and improving the quality and safety of agricultural products.

3. Food Science.

Based on food microbiology and food enzymology, this direction mainly study the physicochemical properties and structure of food components at the molecular level, and study the basic laws that the influence of microorganisms and enzymes on the food quality during processing. This direction also focuses on exploring microorganism resources, investigating on the catalytic mechanism of some special enzymes, and adaptability issues during the process from food research to practical applications.

4. Food Nutrition.

This direction mainly refers to find solutions to the key technical issues such as processing, nutrient retention and control of functional food ingredients, based on the studies of the characteristics, nutritional effects, and dose-effect relationships. Meanwhile, this direction also focus on the metabolic mechanism, metabolic process and metabolic characteristics of human beings under different ages, and pay more attentions to the studies that can solve the challenges that related to the physiological function exploration and processing technology of nutrients such as protein, fat, oligosaccharide, etc. in food.

三、学制和学习年限

博士研究生学制 4 年，最长修业年限 6 年。

IV. LENGTH OF STUDY

The normal study duration for this program is four years. And the maximum length is six years.

四、课程设置与学分要求

本专业所修总学分不得少于 24 学分，其中公共课 14 学分，基础课 4 学分，专业课 2 学分；选修课不少于 2 学分；必修环节 2 学分。在完成以上规定学分的基础上，研究生还可在导师指导下选修校内其它学院开设的研究生课程。

博士生的必修课考核成绩达 70 分为合格，选修课考核成绩达 60 分为合格。

表 1 留学博士研究生课程设置表

课程类别	学分要求	课程类别	学分要求
公共课	14	基础课	4
专业课	2	选修课	≥2
必修环节	2	总学分	≥24

表 2 留学博士研究生课程设置及学分要求

类别	课程编码	课程名称	学分	学时	开课学期	是否必修
公共课	083200IDG2001	中国概况	2	32	2	必修
	083200IDG4002	汉语（一级）	4	64	1	必修

	083200IDG4003	汉语（二级）	4	64	2	必修
	083200IDG4004	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	083200IDJ2001	高级食品化学	2	32	1	必修
	083200IDJ2002	营养素与营养化学	2	32	1	必修
	应修		4 学分			
专业课	083200IDZ2001	风味化学原理与技术	2	32	1	必修
	应修		2 学分			
选修课	083200IDX2001	食品质量评价	2	32	1	选修
	083200IDX2002	食品微生物学与生物技术原理与实践	2	32	1	选修
	086000IMX2002	食品加工与开发	2	32	1	选修
	应修		≥2 学分			
课程总学分要求			≥22 学分			

IV. THE CURRICULUM AND CREDITS REQUIREMENT

Course Classification	**Course Code**	**CourseTitle**	**Credits**	**Course Hours**	**Semester**	**Compulsory/ Elective**
Public courses	086000IDG2001	Chinese Culture	2	32	2	Compulsory
	086000IDG4002	HSK（Level I）	4	64	1	Compulsory
	086000IDG4003	HSK（Level II）	4	64	2	Compulsory
	086000IDG4004	HSK（Level III）	4	64	3	Compulsory
	Credits Requirement		14Credits			
Basic Courses	086000IDJ2001	Advanced Food Chemistry	2	32	1	Compulsory
	086000IDZ1002	Nutrition and Nutritional Chemistry	2	32	1	Compulsory
	Credits Requirement		4Credits			
Discipline Core Courses	086000IDZ2001	Food Flavor Chemistry: Theory and Practice	2	32	1	Compulsory
	Credits Requirement		2Credits			
Elective Courses	086000IDX2001	Food Quality Evaluation	2	32	1	Elective
	086000IDX2002	Food Microbiology and Technology: Theory and Practice	2	32	1	Elective
	086000IMX2002	Food Processing and	2	32	1	Elective

		Development				
	Credits Requirement		≥2Credits			
Total Credits			≥22Credits			

五、必修环节

（一）学术活动（1 学分）

博士生在校期间，应累计参加 5 次以上的学术活动。学术活动包括作学术报告、参加学术报告会、参加国际国内学术会议等形式，其中参加国际国内学术会议应有会议论文摘要、口头报告或墙报。

（二）专业实践（1 学分）

博士生在校期间，应参与社会实践或调查，就食品专业相关问题进行调研并提交实践报告。

V. REQUIRED COMPONENTS

1. Academic Activities (1 credit)

Doctoral students should participate in more than 5 academic activities in total. Academic activities include making academic reports, attending academic seminars, attending international and domestic academic conferences among which abstract, oral reports or wall newspapers are required.

2. Professional Practice (1 credit)

During staying in school, doctoral students should participate in social practice or investigation, conduct research on relevant issues of food specialty and submit practice reports.

六、培养环节及学位论文

（一）个人培养计划

导师为研究生培养的第一责任人。博士生导师应根据本学科的实际情况、培养方案要求，结合研究方向和博士生的特点，制定博士生的个人培养计划。培养计划中应有明确的学位论文选题范围，明确对课程学习、文献阅读、科学研究、学位论文、实践环节等要求和进度安排。培养计划要充分注意因材施教、切实可行，发挥博士生的主动性和创造性。培养计划经导师或指导小组讨论审核并报学院批准后实施。培养计划应在博士生入学二个月内完成。

培养计划表一式四份，学院、导师和博士生各保存一份，一份提交研究生院培养办公室备案。在执行过程中如因客观条件变化，可以修订培养计划，但须经学院主管负责人同意，并报研究生院培养办公室备案。在博士研究生学位论文答辩前，应审查培养计划执行情况。

（二）学科综合考核

为加强博士生培养过程管理，保证培养质量，学校建立博士生学科综合考核制度。博士生最迟须在入学后的第三学期末之前完成课程学习，修满学分，在博士学位论文开始前或初始阶段，参加学院组织的学科综合考核，逾期未能考核的，按不合格处理。

1. 考核内容和方式

学科综合考核的内容应包括导师所指定学习的基础理论、专业知识、学科前沿知识；也应包括导师虽未指定，但作为博士生应该具备的知识以及分析问题、解决问题的能力。学科综合考核的方式可以是口试、笔试，也可以是口、笔兼试。

1. 考核组织

博士生学科综合考核由学院组织安排，可根据各学科特点成立不少于 3 名本学科专家组成的学科综合考核委员会或考核小组，并根据学科专业对博士生培养的目标要求以及培养方案确定的考核形式和考核内容进行考核。学院综合考核委员会或考核小组针对考核内容进行评议，并按“合格”或“不合格”给出考核成绩。

2. 考核结果处理

a．考核成绩评定后，应及时填写《北京工商大学博士研究生学科综合考核表》。学科综合考核成绩为“合格”的，可进入博士学位论文开题工作；

b．具有下列情形之一的，学科综合考核成绩为“不合格”：

（1）存在有违科学道德和学术不端行为；

（2）未按课程学习计划要求完成全部课程学习和考试；

（3） 已按课程学习计划要求完成全部课程考试，但有一门及以上学位必修课程考试不及格；

（4） 未完成必修环节的学习；

（5） 明显缺乏科学研究和实践能力；

（6） 因身心健康原因不能完成正常的学习和科研工作；

（7） 未经批准不参加学科综合考核。

学科综合考核不合格的博士生不能进入学位论文开题工作，学院考核委员会或考核小组应给予考核警告的书面通知，并在规定期限内对其重新考核，考核仍不合格的，应终止其培养过程。

（三）学位论文

博士学位论文是博士研究生学术水平的重要标志，表明作者具有独立从事科学研究工作的能力，在科学或专门技术上做出创新性成果，并反映作者在本领域掌握了坚实宽广的基础理论和系统深入的专门知识。

1. 开题答辩

博士生原则上应在入学后第三学期内，学科综合考核通过后进行论文开题答辩。原则上由各研究方向学科带头人统一组织，公开举行，并提前一周通知研究生教秘备案。

（1）开题报告由文献综述和研究计划两部分组成。博士生在至少阅读 100 篇参考文献（其中外文文献不得少于 70%）的基础上，结合研究方向和论文选题写出文献综述书面报告。文献综述报告应对本学科相关领域的近期国内外研究动态，包括这些领域的主要进展、前沿课题及主要研究方法和手段等给出详尽的介绍。文献综述由博士生本人完成，综述报告应提前 1 周，分送给考核小组每位成员。

（2）开题答辩前张贴海报，公布开题者、导师、课题名、评审委员名单以及举行报告会日期和地点，并组织本学科和相关学科科研人员、教师以及研究生参加。

（3）评审委员会成员不少于 5 人，其中博导至少 2 人。提倡聘请相近专业、跨学科有关专业或科研单位、企业界的专家参加。

（4）博士生对拟开题作 30 分钟左右的全面汇报，就课题的研究范围、意义和价值、拟解决的问题、研究方案及研究进度做出说明，进行可行性论证，并当场回答评审委员提问。指导教师介绍该生的业务基础、研究能力以及对拟开课题的评价。评审小组经过讨论，对该生能否完成课题任务、能否进入学位论文阶段做出明确评定，并将提问和讨论的主要内容记录在案，要求每位评审委员在开题报

告表上签名。

2. 中期检查

中期检查在第五学期末进行，对博士生的论文工作进展情况进行全面考查，以保证论文能够如期顺利完成。中期检查具体组织形式参照“3.1 开题答辩”。中期检查结束后，应填写《北京工商大学博士研究生中期检查表》，由学院学术委员会审核。中期检查达不到要求的，应延期通过，需经再次考核通过或终止培养。对中期检查的具体要求见《北京工商大学博士研究生学位论文管理办法》。

3.学位论文撰写

4. 学位论文撰写

博士生学位论文的详细要求，参见《北京工商大学博士研究生学位论文管理办法》、《北京工商大学研究生学位论文文字重复率检测管理办法》、《北京工商大学博士、硕士学位授予办法》。

5. 科研成果要求

见《2026 级食品与健康学院博士（硕士）研究生在学期间取得创新性成果要求》。

6. 学位论文预答辩

博士生完成学位论文后，在论文送审之前，要完成学位论文的预答辩，以便根据预答辩的情况对学位论文进行进一步修改和完善。 学位论文预答辩通过的，方可进行论文送审和申请正式答辩。对学位论文预答辩的基本要求和执行办法见《北京工商大学博士研究生学位论文管理办法》。

7. 博士学位论文评审与答辩

博士生在通过论文送审的资格审查后，其学位论文即可送交专家评审。具体评审办法按照《北京工商大学博士研究生学位论文管理办法》执行。

评审通过后可组织论文答辩。答辩程序和实施办法等规定按照《北京工商大学博士研究生学位论文管理办法》执行。

VI. TRAINING COMPONENTS AND REQUIREMENTS FOR THE DISSERTATION

1. Personal Study Plan

Supervisors are required to work with doctoral student on making personal study plan according to the current discipline situation, research area and personal interest. The dissertation area, courses attended, literature review arrangement, research and practice should be specified in the study plan. The study plan should be permitted by supervisor or guiding group. This work should be completed within two months after admission.

The students are required to submit 4 hard copies of personal study plan for graduate school, college, supervisor and student himself. In the study period, if the personal study plan need revision, doctoral student should ask for the permission from the authority in charge of this Before defense , the personal study plan will be checked.

2. Qualification Review

The doctoral qualification review is scheduled on the beginning of the 3rd semester. Doctoral students are required to fill the Doctoral Student Qualification Review Form. Supervisors are required to review the

course study performance and research proposal. The review results will be filed to graduate student secretary.

A doctoral dissertation is a key indicator for evaluating the academic level of a doctoral candidate. It indicates that the author has ability to independently engage in scientific research, make innovative achievements in science or technical skill, and demonstrates that the author has a solid and rich foundation of theory and comprehensive and in-depth professional knowledge in this field.

3.1 Research Proposal Defense

The doctoral qualification review is scheduled on the beginning of the 3rd semester. Doctoral students are required to fill the Doctoral Student Qualification Review Form. Supervisors are required to review the course study performance and research proposal. The review results will be filed to graduate student secretary.

(1) The thesis proposal consists of two parts: literature review and research plan. The doctoral candidate will write a written literature review report on the basis of reading at least 100 references. The literature review report should give a detailed introduction to the current frontier research regarding to the fields of this discipline, including the main progress and main research methods. The literature review should be completed by the doctoral candidate himself, which should be sent to each member of the assessment team one week in advance.

(2) Posters will be putted up before the thesis proposal defense, including the name of the thesis proposer, supervisor, project name, evaluation members and the date and place of the report meeting. All teachers and graduate students of this discipline and related disciplines will be invited to participate.

(3) The committee member should not less than 5 members, including at least 2 doctoral supervisors. It is advocated to invite experts from similar majors, interdisciplinary related majors, scientific research institutions and business circles to participate.

(4) The doctoral candidate should make a 30-minute comprehensive report on the proposed proposal, explain the scope, significance and value of the project, the problems to be solved, the research scheme and the research progress, conduct feasibility demonstration, and answer questions from the judges on the spot. The instructor introduces the student's research foundation, research ability and evaluation of the proposed project. After discussion, the defense committee will make a clear assessment on whether the student could complete the project task and enter the dissertation stage. The questions and the main contents of the discussion should be recorded, and each evaluation committee member is required to sign on the proposal report form.

3.2 Mid-term Inspection

The mid-term examination is conducted by experts in the field which is organized by the research group at the end of the sixth semester, and mainly evaluates the ideological and moral quality, course learning and scientific research of the graduate students. After the mid-term examination, students should fill in the《Mid-term Examination Form for Doctoral candidates of Beijing Technology and Business University》, which will be examined and approved by the academic committee of the college. The main inspection items

are as follows:

(1) Check whether the course credits have been completed.

(2) Assess the scientific research status of graduate students. Whether the proposal is made, whether the proposal report meets the requirements, whether scientific papers or other achievements are published, etc. Assess whether the scientific research status of graduate students is suitable for further study.

(3) Assess whether the scientific research is carried out according to the technical route of the thesis proposal and defense. If there is a big deviation, the reasons should be explained in detail.

(4) Examine the ideological and moral qualities of graduate students. From the graduate student's political thought, moral quality, academic accomplishment and so on to conduct the comprehensive investigation.

3.3 Doctoral dissertation

For the detailed requirements of dissertation, please see the "Regulations and Requirements Governing the Doctoral Dissertation of Beijing Technology and Business University", " Regulations and Requirements Governing Plagiarism of Doctoral Dissertation of Beijing Technology and Business University", and " Doctoral and Master Degree Policies of Beijing Technology and Business University".

3.4 Requirements for paper publication

Refer to the "Requirements for Innovative Achievements by Doctoral (Master's) Students of the College of Food and Health in the 2026 Cohort During Their Academic Period."

3.5 PhD Thesis Pre-defense

After the PhD thesis is completed and before sent to reviewers, the doctoral student are required to attend the pre-defense. If students passed the pre-defense, their thesis are allowed to send to reviewers and they can apply for formal thesis defense. Detailed information please refer to .

3.6 Requirements for Thesis

a. No less than 3 years from the opening of the thesis to the defense of the doctoral thesis;

b. The degree thesis must meet the requirements of "Beijing Technology and Business University Doctoral Dissertation Specification";

c. The plagiarism check: Before the anonymous review of the doctoral thesis, the plagiarism of the doctoral thesis will be checked by the graduate office of BTBU. The plagiarism check will be based on the plagiarism check requirement of the doctoral thesis of BTBU. If there was no the plagiarism check or there was a failed plagiarism check for the thesis, there graduation process will not enter the next stage.

d. There are 5 reviewers for the doctoral thesis. Two reviewers are the experts outside the school and they must be able to participate in the defense committee. The other three reviewers will be hired by the graduate office of BTBU to engage in an anonymous review of professors.

七、教学大纲

课程教学大纲内容包括课程编码、课程名称、学时、学分、教学目标、教学方式、考核方式、适用学科专业、先修课程、主要教学内容和学时分配、参考文献等。

VII. PROGRAM SYLLABUS

The content of the program syllabus includes the course code, course name, class hours, credits, teaching objectives, teaching methods, assessment methods, applicable disciplines, prerequisite courses, main teaching content and class hours allocation, references, etc.

八、授课语言

英文

VIII. LANGUAGE OF INSTRUCTION

English

生物与医药(086000) 硕士留学研究生培养方案
Training Program for International Graduate Students
Master of Food Engineering (086000)

授予学位类别：生物与医药

专业学位类别代码及名称：0860 生物与医药

专业学位领域代码及名称：086003 食品工程

制订单位：食品与健康学院

一、培养目标

熟悉中国历史、地理、社会、经济等中国国情和文化基本知识，了解中国政治制度和外交政策，理解中国社会主流价值观和公共道德观念，形成良好的法治观念和道德意识。培养具有扎实的食品科学与工程的基础理论和系统专门知识, 具有较高的综合素质、创新和创业精神，能够较熟练的进行学术搜索，了解本学科国内外发展动态，具有独立从事科学研究或独立担负专门工程技术工作的能力的应用型、复合型高层次食品工程技术与管理人才。

I. TRAINING OBJECTIVES

Be familiar with China's history, geography, society, economy and other basic knowledge of China's national conditions and culture, understand China's political system and foreign policy, understand China's mainstream social values and public morality, and form a good concept of rule of law and moral awareness. Our objectives are to cultivate high qualified professionals who will have profound understanding of food science and engineering; have solid professional knowledge in basic theories and systems; have high comprehensive quality, innovation and entrepreneurship; be able to conduct science research independently and undertake special engineering and technical work independently; be skilled at using a computer; understand the development circumstances and trends of this major both in China and abroad.

二、学科简介与研究方向

生物与医药（食品工程）专业硕士培养从事食品添加剂制造与应用、农产品加工与贮藏、食品生物技术及食品质量与安全等理论研究与技术开发的高级工程技术与管理人才。具体研究方向包括：

（一）食品添加剂制造与应用工程

涵盖食品香料香精、食品乳化剂、食品防腐剂、品质改良剂等食品添加剂领域。主要研究内容包括：1. 食品添加剂绿色生产技术；2. 食品添加剂量效关系、构效关系；3. 适合我国国情的食品添加剂及安全性研究；4. 食品添加剂复配后的功效、标准及安全；5. 非法添加物检测等关键问题;6. 食品风味化学研究;7. 食品用热加工香味料制备及应用。

（二）农产品加工与贮藏工程

以农产品为研究对象，以生物学和工程学为基础，研究农产品贮藏、加工及加工中副产品的综合利用等。主要研究内容包括：1. 农产品加工工程；2. 农产品贮藏与保鲜；3. 农副产品深加工及功能食品开发；4. 植物蛋白提取、改性、功能特性研究；5. 农副产品加工储藏过程的品质控制与改性研究。

（三）食品生物工程

以天然食品资源为研究对象，利用基因工程、酶工程、发酵工程、生物分离工程等手段进行品质改良和深度利用研究，同时研究传统天然食品资源废弃物的生物转化和二次利用技术， 为食品行业提供新型的功能原料和绿色清洁生产技术。主要研究内容包括：1. 天然活性成分的分离纯化及功能评价；2. 利用生物技术实现农副产品原料的开发和利用；3. 利用生物技术改造食品加工传统工艺提高产品质量;4. 呈味物质生物制备。

（四）食品质量与安全工程

以食品的营养、质量安全与健康的关系为研究内容，以生物工程技术与食品科学为基础，研究食品营养的保障与食品安全卫生及质量管理。主要研究内容包括：1. 食品的营养品质；2. 食品营养与安全；3. 食品生产全面系统的质量控制；4. 食品质量管理。

II. DISCIPLINE INTRODUCTION AND RESEARCH DIRECTION

The Master of Biology and Medicine (Food Engineering) specializes in the training of senior engineering and management personnel engaged in the theoretical research and technological development of food additives manufacturing and application, agricultural products processing and storage, food biotechnology and food quality and safety. Specific research directions include:

1 Food additive manufacturing and application engineering

This research area focus on the food additives, including emulsifiers, preservatives, flavorings, and enhancers for quality; study on the green production, application technology and safety evaluation of novel food additives; study the quantitative and constructive relationships of food additives; study on food additives and safety suitable for China's national conditions; study the efficacy, standards and safety of food additives after compounding; study important matters including identifying illicit chemicals; study on food flavor chemistry; study manufacture technology and application of termal processing food flavourants.

2 Agricultural products processing and storage engineering

This research area focus on storage, processing and comprehensive utilization of by-products of agricultural products based on biology and engineering, with agricultural products as the object of research; study on agricultural products processing engineering; study on storage and preservation of agricultural products; study on deep processing of agricultural and sideline products and functional food development; study on plant protein extraction, modification, and functional properties; study on quality control and modification of agricultural and sideline products during processing and storage.

3 Food Bio-engineering

This research area focus on taking natural food resources as the research object, using genetic engineering, enzyme engineering, fermentation engineering, bio-separation engineering and other means to

carry out quality improvement and in-depth utilization research, and at the same time researching the bioconversion and secondary utilization technology of traditional natural food resource wastes, so as to provide new types of functional raw materials and green and clean production technology for the food industry; study the isolation, purification and functional evaluation of natural active ingredients; study the use of biotechnology for the development and utilization of raw materials from agricultural by-products; study the use of biotechnology to modify traditional food processing techniques to improve product quality; study the biological preparation of flavour-presenting substances.

4 Food quality and safety engineering

This research area mainly focus on the protection of food nutrition and food safety and hygiene and quality management, with the relationship between food nutrition, quality and safety and health as the research content, based on bioengineering technology and food science; study the nutritional quality of food; study on food nutrition and safety; study on the total systematic quality control in food production; study on the quality management of food products.

三、学制和学习年限

学制 3 年，学习年限最长不得超过 5 年。

III. LENGTH OF STUDY

This is a full-time program, which can be completed within 3 years. The maximum time permitted is 5 years from the date of registration.

四、课程设置与学分要求

课程类别	学分要求	课程类别	学分要求
公共课	14	基础课	4
专业课	2	选修课	≥6
必修环节	2	总学分	≥28
学分说明	攻读本专业学位的研究生所修总学分不得少于 28 学分，学分组成为课程学分与实践环节学分两部分。在完成以上规定学分的基础上，研究生还可在导师指导下选修校内其它学院开设的研究生课程。		

类别	课程编码	课程名称	学分	学时	开课学期	是否必修
公共课	086000IMG2001	中国概况	2	32	2	必修
	086000IMG4002	汉语（一级）	4	64	1	必修
	086000IMG4003	汉语（二级）	4	64	2	必修
	086000IMG4004	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	083200IDJ2001	高级食品化学	2	32	1	必修
	086000IMJ2001	营养素与营养化学	2	32	1	必修

	应修		4 学分			
专业课	083200IDZ2001	风味化学原理与技术	2	32	1	必修
	应修		2 学分			
选修课	083200IDX2002	食品微生物学与生物技术原理与实践	2	32	1	选修
	083200IDX2001	食品质量评价	2	32	1	选修
	086000IMX2001	现代微生物与发酵工程	2	32	1	选修
	086000IMX2002	食品加工与开发	2	32	1	选修
	应修		≥6 学分			
课程总学分要求			≥26 学分			

IV. THE CURRICULUM AND CREDITS REQUIREMENT

Course Classification	**CourseCode**	**CourseTitle**	**Credits**	**Course Hours**	**Semester**	**Compulsory/ Elective**
Public Courses	086000IMG2001	Chinese Culture	2	32	2	Compulsory
	086000IMG4002	HSK（Level I）	4	64	1	Compulsory
	086000IMG4003	HSK（Level II）	4	64	2	Compulsory
	086000IMG4004	HSK（Level III）	4	64	3	Compulsory
	Credits Requirement		14Credits			
Basic Courses	086000IDJ2001	Advanced food chemistry	2	32	1	Compulsory
	086000IMZ1001	Nutraceutical and Nutritional Chemistry	2	32	1	Compulsory
	Credits Requirement		4 Credits			
Discipline Core Courses	086000IDZ2001	Food flavor chemistry theory and technology	2	32	1	Compulsory
	Credits Requirement		2Credits			
Elective Courses	086000IDX2002	Principle and Practice of Food Microbiology and Biotechnology	2	32	1	Elective
	086000IDX2001	Agricultural products and food quality evaluation	2	32	2	Elective
	086000IMX2001	Modern microorganism and fermentation engineering	2	32	1	Elective
	086000IMX2002	food processing and	2	32	1	Elective

		development				
	Credits Requirement		≥6Credits			
Total Credits			≥26Credits			

五、必修环节

（一）学术活动（1 学分）

研究生在校期间必须参加至少 5 场由研究生院、学院或学科认可的国际国内学术会议、学术论坛、专题讲座、学术报告等，或参加学科竞赛 1 次以上，经导师审核认定完成。

（二）专业实践（1 学分）

研究生在导师指导下到本单位学科其它团队相关研究室完成专业实践，原则上不少于 1 个月，可采用集中实践与分段实践相结合的方式。要求研究生提交实践学习计划，撰写实践学习总结报告，经导师审核认定完成。或在国际国内学术会议、学术论坛上做口头报告、墙报张贴等。

V. REQUIRED COMPONENTS

1. Academic activities (1 credit)

Master graduate students must participate in at least 5 international and domestic academic conferences, academic forums, special lectures, academic reports, etc.; or participate in discipline competitions for more than one time, approved by their supervisors.

2. Specialized subject practice (1 credit)

Master graduate students should participate in specialized subject practice in related other team research rooms of other own discipline for no less than one month under the guidance of supervisors. Master graduate students are required to submit a practical learning plan, write a practical report, reviewed and confirmed by supervisor. Or make oral reports, posters in international and domestic academic conferences, academic forums, etc.

六、培养环节及学位论文

留学研究生培养过程中相关环节及学位论文工作包括开题答辩、中期检查、科研成果审核，论文文字重复率检测、匿名评审、答辩。具体要求详见《北京工商大学来华留学研究生博士、硕士学位授予工作细则》。研究生必须参加科学研究工作，发表专业论文，完成并提交学位论文，答辩通过后授予学位。

（一）学位论文开题

研究生论文开题工作在第三学期后半学期完成。具体要求详见《北京工商大学关于硕士学位论文选题和开题报告的有关规定》。

（二）学位论文中期检查

于第五学期末之前完成此项工作。相关规定详见《北京工商大学研究生学位论文中期检查工作实施细则》。

（三）学位论文评阅与答辩

留学研究生学位论文必须经过答辩，具体要求和操作办法见《北京工商大学硕士学位论文评阅答

辩管理办法》。

（四）专业学位授予的成果要求

见《2026 级食品与健康学院博士（硕士）研究生在学期间取得创新性成果要求》。

（五）授予学位

授予工学硕士学位。学位授予程序详见《北京工商大学博士、硕士学位授予工作实施细则》。

（六）毕业与结业

研究生在学校规定的年限内按培养方案的规定，完成课程学习和其他教学环节，成绩合格，修满所需学分；所撰写的学位论文经外审专家审核后，评阅成绩合格的，准予毕业并颁发毕业证书。

未撰写学位论文，或学位论文未达到标准的，准予结业，发给结业证书。 对退学的学生，学校发给其肄业证明或写实性学习证明。未经批准擅自离校的，不发肄业证明和学习证明。详见《北京工商大学研究生学籍管理规定》。

VI. TRAINING COMPONENTS AND REQUIREMENTS FOR THE DISSERTATION

1 Thesis research initiation

Graduate students must participate in scientific research, publish professional papers, complete and submit thesis, and pass their defense to obtain degree.

Graduate students thesis research initiation should be finished at the second half of third semester.

2 Thesis mid-term examination

The mid-term examination should be done before the end of fifth semester

3 Thesis evaluation and defense

All international students have to defend their thesis

4 Achievement requirements for Degree Award

Refer to the "Requirements for Innovative Achievements by Doctoral (Master's) Students of the College of Food and Health in the 2026 Cohort During Their Academic Period."

5 Degree awarding Engineering master degree

6 Graduation and certification

Graduate students who have completed the links within the period of time according to the provisions of the training program : 1) course and other teaching links, 2) examination and completed the required credits, 3) The degree thesis has been approved by external experts, are allowed to graduate and be issued with the graduation certificate.

If no thesis has been written, or the thesis fails to meet the standards, it is allowed to complete the course of study and a certification will be issued. For students who have dropped out of school, the school will issue them with an academic certification or a realistic learning certification. Those who leave the university without approval shall not be issued with a learning certification. For details, please refer to “Regulations on the management of graduate student status of Beijing Technology and Business University”.

七、教学大纲

课程教学大纲内容包括课程编码、课程名称、学时、学分、教学目标、教学方式、考核方式、适用学科专业、先修课程、主要教学内容和学时分配、参考文献等。

VII. PROGRAM SYLLABUS

The content of the program syllabus includes the course code, course name, class hours, credits, teaching objectives, teaching methods, assessment methods, applicable disciplines, prerequisite courses, main teaching content and class hours allocation, references, etc.

八、授课语言

英文

VIII. LANGUAGE OF INSTRUCTION

English

轻工科学与工程学院

轻工技术与工程(082200) 博士留学生研究生培养方案

Training Program for International Graduate Students

Doctor programm for Light IndustryTechnology and Engineering (082200)

授予学位类别：工学博士

一级学科代码名称：0822 轻工技术与工程

制订单位：轻工科学与工程学院

一、培养目标

熟悉中国历史、地理、社会、经济等中国国情和文化基本知识，了解中国政治制度和外交政策，理解中国社会主流价值观和公共道德观念，形成良好的法治观念和道德意识。培养掌握轻工技术与工程领域的发展动态，具有国际化思维与视野，具有较强的创新意识和创新能力，掌握轻工技术与工程领域坚实的基础理论和技术基础，具备践行健康中国行动，创新从事轻工相关领域科学研究、教学、生产开发与管理的高层次专门人才。

I. TRAINING OBJECTIVES

Be familiar with China's history, geography, society, economy and other basic knowledge of China's national conditions and culture, understand China's political system and foreign policy, understand China's mainstream social values and public morality, and form a good concept of rule of law and moral awareness. It is our mission to empower tomorrow’s senior professionals in the field of ChemicalEngineering and Biotechnology by giving our students rewarding and fruitful learning experiences. Our students are nurtured to understand the developments of food science and engineering,build a solid foundation on basic theoretical knowledge, keep consciousness of innovation with strong innovation ability, especially the ability of exploiting new research fields and development orientations. All students are expected to be knowledgeable and wise enough to independently perform scientific research and teaching tasks, make collaborative discoveries and inventions, and become the high-level talents of scientific research, teaching, production, development and management in the related-fields.

二、学科简介与研究方向

学科简介：轻工技术与工程学科源于原北京轻工业学院 1959 年设立的发酵工程专业和 1980 年设 立的日化专业。1981 年开始招收香料香精方向硕士研究生，1986 年获得轻工有机合成硕士学位授予权，2012 年获得化妆品科学与技术硕士学位授予权，2016 年获得轻工技术与工程一级学科硕士学位授予权。在香料香精、发酵工程、生物质化学与工程、日用化学品科学与技术等方向形成了显著的特色与优势，以第一完成单位获得国家技术发明奖二等奖 1 项、国家科学技术进步奖二等奖 3 项、

何梁何利科学与技术创新奖 1 项。

主要研究方向：

（一）香料香精

主要研究高附加值天然香料、合成香料、香精绿色制备新技术、新工艺、新产品。在含硫香料、手性香料、肉味香精等方面形成了鲜明特色与优势，提出了肉香味含硫化合物分子特征结构单元模型、“味料同源”中国特色肉味香精制造新理念，建立了我国含硫香料和肉味香精研发通用技术平台，为 我国成为世界含硫香料生产强国和肉味香精生产大国做出了重要贡献，支持了日化、食品、烟草、医 药、材料等行业的健康发展。

（二）发酵工程

主要研究利用微生物、动植物细胞、酶制剂进行物质转化的理论与工程技术。致力于传统发酵食品工业技术提升，在生物酿造工程、新型酶制剂分子特性及催化机制、生物源食品添加剂及功效因子的催化与转化，生物分离工程等领域形成特色与优势。提出基于风味健康双导向的传统发酵食品科研新理念，对白酒、啤酒、黄酒、果酒、酱油、腐乳等全过程底物-菌群-风味相关性进行系统解析；建 立完善了以新型高速逆流色谱为核心的生物分离新技术。

（三）生物质化学与工程

主要研究纤维素、碳水化合物、废弃蛋白、油脂等生物质原料的特性及其新的催化转化理论与工程技术。提出植物资源高效转化及高值化利用理念，在催化剂挖掘筛选、分子特性与改造、生物质结构重整、转化机理与过程控制等研究领域凸显特色，建立一系列生物质催化理论及定向转化技术方法，在纤维素催化转化功能多糖、马铃薯淀粉重组米、发酵行业固体废弃物及植物蛋白定向制备功能多肽或氨基酸等方面取得了一系列工程化应用成果。

（四）日用化学品科学与技术

主要研究化妆品和新型表面活性剂的设计、合成、性能及应用，在植物资源化妆品原料及环保安全性表面活性剂设计应用方面形成了特色与优势。设计高效的双亲分子，研究绿色合成工艺，开发安全、环保、多功能的新型表面活性剂。探索两亲分子聚集及自组装规律，研究结构与效能之间的构效关系。研究表面活性剂在洗涤剂、化妆品、个人卫生护理用品、油墨、食品等领域的应用基础及配方，支持了这些行业改进工艺、提高效率、改善产品质量、促进产品更新换代及技术升级。

II. DISCIPLINE INTRODUCTION AND RESEARCH DIRECTION

The predecessor of the School of Light Industry was the department of chemical engineering of Beijing College of Light Industry, which was established in 1958. The school owns four provincial level laboratories including Beijing laboratory of food quality and safety, Beijing key laboratory of flavor chemistry, Key Laboratory of Liquor Quality and Safety of China Light Industry and Key Laboratory of Brewing Molecular Engineering of China Light Industry. In addition, the school also has a national off-campus practice education base and a large-scale instruments center. The total laboratory area is more than 7000 m2, and the total assets are about 230 million CNY.

The School of Light Industry has one doctorate degree project in Light Industry Technology and Engineering, which is including four research areas:

1. Daily Chemical Science and Engineering: Mainly research in the design, synthesis, performance and application of cosmetics and new surfactants.

2. Fragrance and Flavors Technology and Engineering: Mainly research in high value-added natural fragrances, synthetic fragrances, new technologies, new processes, and new products for the green preparation of fragrances.

3. Biomass Science and Engineering: Mainly research in the characteristics of cellulose, carbohydrates, waste protein, oil and other biomass raw materials and their new catalytic conversion theory and engineering technology.

4. Fermentation Engineering: Mainly research in the theory and engineering technology of material transformation using microorganisms, animal and plant cells, and enzyme preparations. The research is committed to the modernization of traditional fermented food production.

三、学制和学习年限

博士研究生学制 4 年，最长修业年限 6 年。

III. LENGTH OF STUDY

The normal study duration for this program is four years. And the maximum length is six years.

四、课程设置与学分要求

本专业所修总学分不得少于 25 学分，其中公共课 14 学分，基础课 2 学分，专业课 3 学分；选修 课不少于 4 学分；必修环节 2 学分。在完成以上规定学分的基础上，研究生还可在导师指导下选修校 内其它学院开设的研究生课程。

博士生的必修课考核成绩达 70 分为合格，选修课考核成绩达 60 分为合格。

表 1 留学博士研究生课程设置表

课程类别	学分要求	课程类别	学分要求
公共课	14	基础课	2
专业课	3	选修课	≥4
必修环节	2	总学分	≥25

表 2 留学博士研究生课程设置及学分要求

类别	课程编码	课程名称	学分	学时	开课学期	是否必修
公共课	082200IDG2001	中国概况	2	32	1	必修
	082200IDG4002	汉语（一级）	4	64	1	必修
	082200IDG4003	汉语（二级）	4	64	2	必修
	082200IDG4004	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	086000IDJ2001	高级食品化学	2	32	1	必修
	应修		2 学分			

专业课	086000IDZ2001	风味化学原理与技术	2	32	1	必修
	082200IDZ2001	表面活性剂化学	1	16	1	必修
	应修		3 学分			
选修课	082200IDX2001	日用化学品前沿	2	32	1	选修
	082200IDX2002	流体流动与输送机械	2	32	1	选修
	086000IDX2002	食品微生物学与生物技术原理与实践	2	32	1	选修
	应修		≥4 学分			
课程总学分要求			23 学分			

IV. THE CURRICULUM AND CREDITS REQUIREMENT

Course Classification	**Course Code**	**Course Title**	**Credits**	**Course Hours**	**Semester**	**Compulsory/Elective**
Public Course	082200IDG2001	Chinese culture	2	32	1	Compulsory
	082200IDG4002	HSK（Level I)	4	64	1	Compulsory
	082200IDG4003	HSK（Level II)	4	64	2	Compulsory
	082200IDG4004	HSK（Level III)	4	64	3	Compulsory
	Credits Requirement		14Credits			
Basic Courses	086000IDJ2001	Advanced Food Chemistry	2	32	1	Compulsory
	Credits Requirement		2Credits			
Discipline Core Course	086000IDZ2001	Food Flavor Chemistry: Theory and Practice	2	32	1	Compulsory
	082200IDZ2001	Surfactant Chemistry	1	16	1	Compulsory
	Credits Requirement		3Credits			
Major Optional Course	082200IDX2001	Frontiersin Daily Chemicals	2	32	1	Elective
	082200IDX2002	Fluid flow and transportation machinery	2	32	1	Elective
	086000IDX2002	Food Microbiology and Technology: Theory and Practice	2	32	1	Elective
Credits Requirement			≥4 Credits			
Total Credits			23Credits			

五、必修环节

（一）学术活动（ 1 学分）

博士生在校期间，应累计参加 5 次以上的学术活动。学术活动包括作学术报告、参加学术报告会、 参加国际国内学术会议等形式，其中参加国际国内学术会议应有口头报告或墙报。

（二）专业实践（ 1 学分）

博士生在校期间，应参与社会实践或调查，就轻工专业相关问题进行调研并提交实践报告。

V. REQUIRED COMPONENTS

Academic Activities (1 credit)

Doctoral students should participate in more than 5 academic activities in total. Academic activities include making academic reports, attending academic seminars, attending international and domestic academic conferences among which oral reports or wall newspapers are required.

Professional Practice (1 credit)

During staying in school, doctoral students should participate in social practice or investigation, conduct research on relevant issues of food specialty and submit practice reports.

六、培养环节及学位论文

（一）个人培养计划

导师为研究生培养的第一责任人。博士生导师应根据本学科的实际情况、培养方案要求，结合研究方向和博士生的特点，制定博士生的个人培养计划。培养计划中应有明确的学位论文选题范围，明确对课程学习、文献阅读、科学研究、学位论文、实践环节等要求和进度安排。培养计划要充分注意因材施教、切实可行，发挥博士生的主动性和创造性。培养计划经导师或指导小组讨论审核并报学院批准后实施。培养计划应在博士生入学二个月内完成。

培养计划表一式四份，学院、导师和博士生各保存一份，一份提交研究生院培养办公室备案。在执行过程中如因客观条件变化，可以修订培养计划，但须经学院主管负责人同意，并报研究生院培养办公室备案。在博士研究生学位论文答辩前，应审查培养计划执行情况。

（二）学科综合考核

为加强博士生培养过程管理，保证培养质量，学校建立博士生学科综合考核制度。博士生最迟须在入学后的第三学期末之前完成课程学习，修满学分，在博士学位论文开始前或初始阶段，参加学院组织的学科综合考核，逾期未能考核的，按不合格处理。

1. 考核内容和方式

学科综合考核的内容应包括导师所指定学习的基础理论、专业知识、学科前沿知识；也应包括导师虽未指定，但作为博士生应该具备的知识以及分析问题、解决问题的能力。学科综合考核的方式可以是口试、笔试，也可以是口、笔兼试。

2. 考核组织

博士生学科综合考核由学院组织安排，可根据各学科特点成立不少于 3 名本学科专家组成的学科综合考核委员会或考核小组，并根据学科专业对博士生培养的目标要求以及培养方案确定的考核形式和考核内容进行考核。学院综合考核委员会或考核小组针对考核内容进行评议，并按“合格 ”或“不合格 ”给出考核成绩。

3. 考核结果处理

a ．考核成绩评定后，应及时填写《北京工商大学博士研究生学科综合考核表》 。学科综合考核 成绩为“合格 ”的，可进入博士学位论文开题工作；

b ．具有下列情形之一的，学科综合考核成绩为“不合格 ”：

（1）存在有违科学道德和学术不端行为；

（2）未按课程学习计划要求完成全部课程学习和考试；

（3） 已按课程学习计划要求完成全部课程考试，但有一门及以上学位必修课程考试不及格；

（4） 未完成必修环节的学习；

（5） 明显缺乏科学研究和实践能力；

（6） 因身心健康原因不能完成正常的学习和科研工作；

（7） 未经批准不参加学科综合考核。

学科综合考核不合格的博士生不能进入学位论文开题工作，学院考核委员会或考核小组应给予考核警告的书面通知，并在规定期限内对其重新考核，考核仍不合格的，应终止其培养过程。

4. 学位论文

博士学位论文是博士研究生学术水平的重要标志，表明作者具有独立从事科学研究工作的能力，在科学或专门技术上做出创新性成果，并反映作者在本领域掌握了坚实宽广的基础理论和系统深入的 专门知识。

4.1 开题答辩

博士生原则上应在入学后第三学期内，学科综合考核通过后进行论文开题答辩。原则上由各研究方向学科带头人统一组织，公开举行，并提前一周通知研究生教秘备案。

（1）开题报告由文献综述和研究计划两部分组成。博士生在至少阅读 100 篇参考文献（其中外文文献不得少于 70%）的基础上，结合研究方向和论文选题写出文献综述书面报告。文献综述报告应 对本学科相关领域的近期国内外研究动态，包括这些领域的主要进展、前沿课题及主要研究方法和手 段等给出详尽的介绍。文献综述由博士生本人完成，综述报告应提前 1 周，分送给考核小组每位成员。

（2）开题答辩前张贴海报，公布开题者、导师、课题名、评审委员名单以及举行报告会日期和地点，并组织本学科和相关学科科研人员、教师以及研究生参加。

（3）评审委员会成员不少于 5 人，其中博导至少 2 人。提倡聘请相近专业、跨学科有关专业或科研单位、企业界的专家参加。

（4）博士生对拟开题作 30 分钟左右的全面汇报，就课题的研究范围、意义和价值、拟解决的问 题、研究方案及研究进度做出说明，进行可行性论证，并当场回答评审委员提问。指导教师介绍该生 的业务基础、研究能力以及对拟开课题的评价。评审小组经过讨论，对该生能否完成课题任务、能否 进入学位论文阶段做出明确评定，并将提问和讨论的主要内容记录在案，要求每位评审委员在开题报 告表上签名。

4.2 中期检查

中期检查在第五学期末进行，对博士生的论文工作进展情况进行全面考查，以保证论文能够如期顺利完成。中期检查具体组织形式参照“3. 1 开题答辩 ”。中期检查结束后，应填写《北京工商大

学博士研究生中期检查表》，由学院学术委员会审核。中期检查达不到要求的，应延期通过，需经再次 考核通过或终止培养。对中期检查的具体要求见《北京工商大学博士研究生学位论文管理办法》。

4.3 学位论文撰写

博士生学位论文的详细要求，参见《北京工商大学博士研究生学位论文管理办法》、《北京工商大学研究生学位论文文字重复率检测管理办法》、《北京工商大学博士、硕士学位授予办法》。

4.4 科研成果要求

博士生在学期间（以入学时间为界）必须发表学术论文或获得科研成果。具体要求参见《北京工商大学博士、硕士学位授予办法》。

学术论文、科研成果等必须以北京工商大学为第一单位署名发表。如博士学位论文已完成，学术论文尚未正式刊出，须提交论文正式录用通知申请答辩，但领取博士学位证书时需有已刊出论文或符合以上要求的其他科研成果材料。

4.5 学位论文预答辩

博士生完成学位论文后，在论文送审之前，要完成学位论文的预答辩，以便根据预答辩的情况对学位论文进行进一步修改和完善。 学位论文预答辩通过的，方可进行论文送审和申请正式答辩。对学位论文预答辩的基本要求和执行办法见《北京工商大学博士研究生学位论文管理办法》。

4.6 博士学位论文评审与答辩

博士生在通过论文送审的资格审查后，其学位论文即可送交专家评审。具体评审办法按照《北京工商大学博士研究生学位论文管理办法》执行。

评审通过后可组织论文答辩。答辩程序和实施办法等规定按照《北京工商大学博士研究生学位论文管理办法》执行。

VI. TRAINING COMPONENTS AND REQUIREMENTS FOR THE DISSERTATION

3.1 Personal Study Plan

Supervisors are required to work with doctoral student on making personal study plan according to the current discipline situation, research area and personal interest. The dissertation area, courses attended, literature review arrangement, research and practice should be specified in the study plan. The study plan should be permitted by supervisor or guiding group. This work should be completed within two months after admission.

The students are required to submit 4 hard copies of personal study plan for graduate school, college, supervisor and student himself. In the study period, if the personal study plan need revision, doctoral student should ask for the permission from the authority in charge of this Before defense , the personal study plan will be checked.

3.2 Qualification Review

The doctoral qualification review is scheduled on the beginning of the 3rd semester. Doctoral students are required to fill the Doctoral Student Qualification Review Form. Supervisors are required to review the course study performance and research proposal. The review results will be filed to graduate student

secretary.

3.3 Dissertation

3.3. 1 Research Proposal Defense

The thesis proposal defense will be held in the third semester. In principle, the thesis proposal defense should be organized by discipline leaders of all research directions and held in public. The thesis proposal defense should be notified to the graduate student's secretary of education for record before one week.

(1) The thesis proposal consists of two parts: literature review and research plan. The doctoral candidate will write a written literature review report on the basis of reading at least 100 references. The literature review report should give a detailed introduction to the current frontier research regarding to the fields of this discipline, including the main progress and main research methods.The literature review should be completed by the doctoral candidate himself, which should be sent to each member of the assessment team one week in advance.

(2) Posters will be putted up before the thesis proposal defense, including the name of the thesis proposer, supervisor, project name, evaluation members and the date and place of the report meeting. All teachers and graduate students of this discipline and related disciplines will be invited to participate.

(3) The committee member should not less than 5 members, including at least 2 doctoral supervisors.It is advocated to invite experts from similar majors, interdisciplinary related majors, scientific research institutions and business circles to participate.

(4) The doctoral candidate should make a 30-minute comprehensive report on the proposed proposal, explain the scope, significance and value of the project, the problems to be solved, the research scheme and the research progress, conduct feasibility demonstration, and answer questions from the judges on the spot.The instructor introduces the student's research foundation, research ability and evaluation of the proposed project.After discussion, the defense committee will make a clear assessment on whether the student could complete the project task and enter the dissertation stage. The questions and the main contents of the discussion should be recorded, and each evaluation committee member is required to sign on the proposal report form.

3.3.2 Mid-term Inspection

The mid-term examination is conducted by experts in the field which is organized by the research group at the end of the sixth semester, and mainly evaluates the ideological and moral quality, course learning and scientific research of the graduate students. After themid-term examination, students should fill in the 《Mid-term Examination Form for Doctoral candidates of Beijing Technology and Business University 》, which will be examined and approved by the academic committee of the college. The main inspection items are as follows:

(1) Check whether the course credits have been completed.

(2) Assess the scientific research status of graduate students. Whether the proposal is made, whether the proposal report meets the requirements, whether scientific papers or other achievements are published, etc. Assess whether the scientific research status of graduate students is suitable for further study.

(3) Assess whether the scientific research is carried out according to the technical route of the thesis proposal and defense. If there is a big deviation, the reasons should be explained in detail.

(4) Examine the ideological and moral qualities of graduate students. From the graduate student's political thought, moral quality, academic accomplishment and so on to conduct the comprehensive investigation.

3.3.3 Doctoral dissertation

A doctoral dissertation is a key indicator for evaluating the academic level of a doctoral candidate. It indicates that the author has ability to independently engage in scientific research, make inn ovative achievements in science or technical skill, and demonstrates that the author has a solid and rich foundation of theory and comprehensive and in-depth professional knowledge in this field. For the detailed requirements of dissertation, please see the "Regulations and Requirements Governing the Doctoral Dissertation of Beijing Technology and Business University", " Regulations and Requirements Governing Plagiarism of Doctoral Dissertation of Beijing Technology and Business University", and " Doctoral and Master Degree Policies of Beijing Technology and Business University".

On the basis of the above documents, the discipline of Food Science and Engineering has the following additional requirements for international doctoral students.

3.3.4 Requirements for paper publication

During their doctoral studies (counting from the date of admission), doctoral candidates shall publish academic papers or obtain scientific research achievements. For detailed requirements, please refer to the Regulations on the Conferment of Doctoral and Master’s Degrees of Beijing Technology and Business University.

All academic papers and scientific research achievements must be published with Beijing Technology and Business University listed as the first affiliation. If the doctoral dissertation has been completed while the corresponding academic paper has not yet been formally published, candidates may apply for the thesis defense by submitting the official paper acceptance notice. However, to collect the doctoral degree certificate, candidates must provide the formally published paper or other materials of scientific research achievements that meet the above requirements.

3.3.5 PhD Thesis Pre-defense

After the PhD thesis is completed and before sent to reviewers, the doctoral student are required to attend the pre-defense. If students passed the pre-defense, their thesis are allowed to send to reviewers and they can apply for formal thesis defense. Detailed information please refer to BTBU Regulation for Doctoral Dissertation >.

3.3.6 Requirements for Thesis

a. No less than 3 years from the opening of the thesis to the defense of the doctoral thesis;

b. The degree thesis must meet the requirements of "Beijing Technology and Business University Doctoral Dissertation Specification";

c. The plagiarism check: Before the anonymous review of the doctoral thesis, the plagiarism of the

doctoral thesis will be checked by the graduate office of BTBU. The plagiarism check will be based on the plagiarism check requirement of the doctoral thesis of BTBU. If there was no the plagiarism check or there was a failed plagiarism check for the thesis, there graduation process will not enter the next stage.

d. There are 5 reviewers for the doctoral thesis.Two reviewers are the experts outside the school and they must be able to participate in the defense committee. The other three reviewers will be hired by the graduate office of BTBU to engage in an anonymous review of professors.

七、教学大纲

课程教学大纲内容包括课程编码、课程名称、学时、学分、教学目标、教学方式、考核方式、适用学科专业、先修课程、主要教学内容和学时分配、参考文献等。

VII. PROGRAM SYLLABUS

The content of the program syllabus includes the course code, course name, class hours, credits, teaching objectives, teaching methods, assessment methods, applicable disciplines, prerequisite courses, main teaching content and class hours allocation, references, etc.

八、授课语言

英语。

VIII. LANGUAGE OF INSTRUCTION

English.

环境科学与工程(083000) 硕士留学生研究生培养方案

Training Program for International Graduate Students Master of Environmental Science and Engineering (083000)

授予学位类别：工学

一级学科代码及名称：0830 环境科学与工程

制订单位：轻工科学与工程学院

一、培养目标

坚持立德树人的根本任务，以培养环境科学与工程领域高素质、高层次的创新型人才为目标。要求学生掌握本学科坚实的基础理论知识、科学研究方法和实验实践技能，熟悉环境领域国内外发展和研究动态，具有良好的科学素质和团队精神，具有较强实践能力和一定创新能力，具有从事科学研究或独立承担环境领域专业技术工作的能力。

I. TRAINING OBJECTIVES

The Master of Environmental Science and Engineering program at Beijing Technology and Business University is committed to cultivating individuals with strong moral character. It is designed to develop high-quality and innovative talent in the field of environmental science and engineering, with a focus on the characteristics of light industry environmental protection. The program emphasizes the acquisition of fundamental theoretical knowledge, scientific research methods, and practical skills, as well as an understanding of the latest trends in China and abroad. Students are expected to possess strong scientific and team-oriented qualities, as well as practical and innovative abilities. Additionally, the program emphasizes the development of independent work capabilities in environmental engineering-related industries.

二、学科简介与研究方向

北京工商大学环境科学与工程学科源于北京轻工业学院环境工程专业，是我国最早开展环境学科教学和科研工作的机构之一。1979 年开始招收培养本科生，1981 年开始招收培养硕士研究生，1996 年获批“环境工程”二级学科硕士学位授予权，2006 年获批“环境科学与工程”一级学科硕士学位授予权和“环境科学”二级学科硕士学位授予权，环境工程现为北京市重点建设学科。学科传承轻工环保特色，紧密围绕轻工行业和北京市战略发展需求，充分利用我校在环境、食品、材料、信息技术等学科的传统优势，以多学科交叉融合促进环境学科发展，积极开拓新领域和新方向，以培养环境保护领域高素质综合创新型人才为目标，形成了特色鲜明的四个学科方向：

（一）城市环境污染治理。本方向主要研究区域大气和水等多介质污染协同治理理论与技术。主要内容包括：京津冀及周边地区城市大气污染来源解析、污水处理与回用新技术、污泥减量化等。

（二）轻工食品清洁生产。本方向主要研究农林加工及食品生产过程的污染物控制及清洁生产理论与技术。主要内容包括：农林加工及食品生产过程的挥发性有机废气、高浓度有机废水、工业生物

质废弃物的治理与高效利用及发酵工业全生命周期环境影响评估等。

（三）食品有机废弃物资源化。本方向主要研究有机废弃物高值安全利用理论与技术。主要内容包括：厨余垃圾等城市高含水废弃物和轻工业有机废物的资源化利用等。

（四）环境污染与食品安全。本方向主要研究介质环境及微环境污染对食品安全风险的影响及其控制理论与技术。主要内容包括：食品安全相关污染物风险检测和控制、介质环境污染风险评估分析、食品包装材料和环境痕量污染物分析及健康效应等。

II. DISCIPLINE INTRODUCTION AND RESEARCH DIRECTION

The Master of Environmental Science and Engineering program at Beijing Technology and Business University (BTBU) has a rich history, originating from the Environmental Engineering program at Beijing Institute of Light Industry, which was one of the earliest institutions in China to teach and conduct research in environmental science. The undergraduate program was established in 1979, followed by the graduate program in 1981. In 1996, the program was authorized to confer second-level master degrees in environmental engineering, and in 2006, it was authorized to confer first-level master degrees in environmental science and engineering, as well as second-level master degrees in environmental science. Today, it is a key discipline in Beijing City, with a focus on meeting the demands of Beijing's development. The program leverages the traditional strengths of environmental science, food science, material science, and information science at BTBU, and integrates different disciplines to develop environmental science and technology and explore new areas and directions. The program aims to cultivate high-quality, comprehensive, and innovative talents, with a focus on four research directions.

Direction 1: City environmental pollution control.

This direction mainly studies the theory and technology of coordinated control of regional air pollution, water pollution, and other multi-media pollution. The focus is on the analysis of urban air pollution sources in Beijing-Tianjin-Hebei and surrounding areas, new technologies for sewage treatment and reuse, and sludge reduction. Especially, the school has accumulated advantages in urban air pollution source emission inventory and vehicle emission characteristics, biological treatment of high-concentration sewage, sewage regeneration treatment and disinfection technology, etc.

Direction 2: Cleaner production in the light and food industry.

This direction mainly studies the theory and technology of pollutant control and cleaner production in agricultural and forestry processing and food production. The focus is on the treatment and efficient utilization of volatile organic waste gas, high-concentration organic wastewater, and industrial biomass waste in the agricultural and forestry processing and food production processes, and assessment of life cycle environmental impact of the fermentation industry. The school has accumulated advantages in the biological adsorption of volatile organic compounds, advanced oxidation of wastewater and biological denitrification, thermochemical conversion and energy recovery of waste biomass, and biochar fabrication technology, etc.

Direction 3: Organic food waste utilization.

This direction mainly studies the theory and technology of high-value safe utilization of organic waste. The research focuses on the resource utilization of urban high-water-moisture waste such as kitchen waste

and organic waste from light industry. The school has accumulated advantages in the safe and high-value utilization technology of kitchen waste and recycling of fermentation waste. The research teams have developed advanced technologies of "intelligent collection and transportation-fine pretreatment-high-efficiency separation-anaerobic fermentation-waste liquid fertilization", which is used for kitchen waste treatment in Beijing, Qingdao and other cities.

Direction 4: Environmentalpollution and food safety. This direction mainly studies the influence of medium environment and microenvironment pollution on food safety risks and its control theory and technology. The focus is on the risk detection and control of food safety-related pollutants, risk assessment and analysis of media environment pollution, food packaging materials and environmental trace pollutants analysis and health effects. The school has accumulated advantages in the generation, migration, transformation, and control of antibiotic resistance genes and disinfection by-products in water supply, food safety testing, and bio-based green food packaging materials, etc.

三、学制和学习年限

学术型硕士研究生学制 3 年，最长修业年限 5 年。

III. LENGTH OF STUDY

The normal study duration for this program is three years. And the maximum length is five years.

四、课程设置与学分要求

课程类别	学分要求	课程类别	学分要求
公共课	14	基础课	2
专业课	2	选修课	≥4
必修环节	2	总学分	≥24

类别	课程编码	课程名称	学分	学时	开课学期	是否必修
公共课	083000IMG2001	中国概况	2	32	1	必修
	083000IMG4002	汉语（一级）	4	64	1	必修
	083000IMG4003	汉语（二级）	4	64	2	必修
	083000IMG4004	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	083000IMJ2001	高等环境化学	2	32	1	二选一
	083000IMJ2002	环境科学与工程前沿	2	32	1	
	应修		2 学分			
专业课	083000IMZ2001	水处理原理	2	32	1	四选一
	083000IMZ2002	大气污染控制与装备	2	32	1	
	083000IMZ2003	固体废物资源化处理工程	2	32	1	
	083000IMZ2004	工业清洁生产原理与方法	2	32	1	

	应修		2 学分			
选修课	083000IMX2001	现代环境分析技术	2	32	1	选修
	083000IMX2002	环境生态学	2	32	1	选修
	083000IMX2003	环境规划与管理	2	32	1	选修
	083000IMX1004	环境分析波谱学	1	16	1	选修
	083000IMX1005	环境代谢组学	1	16	1	选修
	083000IMX2006	能源与环境	2	32	1	选修
	083000IMX2007	现代环境生物技术	2	32	2	选修
	083000IMX2008	膜分离技术原理及应用	2	32	1	选修
	083000IMX2009	农业面源污染与控制	2	32	1	选修
	083000IMX2010	高浓度有机工业废水生物处理技术	2	32	1	选修
	083000IMX2011	环境与资源经济学	2	32	2	选修
	083000IMX2012	专业英语	2	32	2	选修
	083000IMX1013	英文科技论文写作	1	16	2	选修
	083000IMX2014	大气污染化学与物理	2	32	2	选修
	083000IMX2015	生态保护与修复	2	32	2	选修
	083000IMX2016	环境毒理与健康风险	2	32	2	选修
	083000IMX2017	环境催化技术	2	32	2	选修
	083000IMX2018	工业分离技术	2	32	2	选修
	083000IMX2019	生物质转化技术	2	32	1	选修
	083000IMX2020	逻辑与批判性思维	2	32	2	选修
	083000IMX2021	土壤污染修复技术	2	32	1	选修
	083000IMX2022	大气污染监测技术	2	32	2	选修
	083000IMX2023	工业废水处理前沿	2	32	2	选修
	083000IMX2024	土壤与地下水污染防治工程	2	32	2	选修
	083000IMX2025	环境与食品分析技术	2	32	2	选修
	083000IMX2026	新污染物的样品分析技术与应用	2	32	2	选修
	083000IMX2027	环境卫星遥感技术与应用	2	32	2	选修
	应修		≥4 学分			
课程总学分要求			≥22 学分			

说明：具体要求参照同学历层次国内生相应要求。

4. CURRICULUM AND CREDITS REQUIREMENTS

Course Classification	Credits Requirement	Course Classification	Credits Requirement
Public Course	14	Basic Courses	2
Discipline Core Course	2	Major Optional Course	≥4

Required Components	2	Total Credits	≥24

Course Classification	Course Code	Course	Credits	Course Hours	Semester	Compulsory /Elective
Public Courses	083000IMG2001	Chinese Culture	2	32	1	Compulsory
	083000IMG4002	HSK（Level I）	4	64	1	Compulsory
	083000IMG4003	HSK（Level II）	4	64	2	Compulsory
	083000IMG4004	HSK（Level III）	4	64	3	Compulsory
	CreMits Requirement		14 Credits			
Basic Courses	083000IMJ2001	Advanced Environmental Chemistry	2	32	1	Compulsory, select one from the two courses
	083000IMJ2002	Frontiers of Environmental Science and Engineering	2	32	1	
	Credits Requirement		2Credits			
Discipline Core Courses	083000IMZ2001	Principle of Water Treatment	2	32	1	Compulsory, select one from the four courses
	083000IMZ2002	Atmospheric Pollution Control and Equipment	2	32	1	
	083000IMZ2003	Solid Waste Resource Treatment Project	2	32	1	
	083000IMZ2004	Principles and Methods of Industrial Cleaner Production	2	32	1	
	Credits Requirement		2 Credits			
Major Elective Courses	083000IMX2001	Modern Environmental Analysis Technology	2	32	1	Elective
	083000IMX2002	Environmental ecology	2	32	1	Elective
	083000IMX2003	Environmental Planning and Management	2	32	1	Elective
	083000IMX1004	Environmental Analysis Spectroscopy	2	32	1	Elective
	083000IMX1005	Environmental Metabolomics	1	16	1	Elective
	083000IMX2006	Energy and Environment	2	32	1	Elective
	083000IMX2007	Modern Environmental Biotechnology	2	32	1	Elective
	083000IMX2008	Principle and Application of Membrane Separation Technology	2	32	1	Elective
	083000IMX2009	Agricultural Non-point Source Pollution and Control	2	32	1	Elective
	083000IMX2010	Biological Treatment Technology of High Concentration Organic	2	32	1	Elective

		Industrial Wastewater				
	083000IMX2011	Environment and Resource Economics	2	32	2	Elective
	083000IMX2012	Professional English	2	32	2	Elective
	083000IMX1013	English Scientific Paper Writing	1	16	2	Elective
	083000IMX2014	Air Pollution Chemistry and Physics	2	32	2	Elective
	083000IMX2015	Ecological Protection and Restoration	2	32	2	Elective
	083000IMX2016	Environmental Toxicology and Health Risks	2	32	2	Elective
	083000IMX2017	Environmental Catalysis Technology	2	32	2	Elective
	083000IMX2018	Industrial Separation Technology	2	32	2	Elective
	083000IMX2019	Biomass Conversion Technology	2	32	2	Elective
	083000IMX2020	Logic and Critical Thinking	2	32	2	Elective
	083000IMX2021	Soil Pollution Remediation Technology	2	32	2	Elective
	083000IMX2022	Air Pollution Monitoring Technology	2	32	2	Elective
	083000IMX2023	Frontiers in Industrial Wastewater Treatment	2	32	2	Elective
	083000IMX2024	Soil and Groundwater Pollution Prevention and Control Project	2	32	2	Elective
	083000IMX2025	Environment and Food Analysis Techniques	2	32	2	Elective
	083000IMX2026	Sample Analysis Techniques and Applications for Emerging Pollutants	2	32	2	Elective
	083000IMX2027	Environmental Satellite Remote Sensing Technology and Applications	2	32	2	Elective
	Credits Requirement		≥4Credits			
Total Credits			≥22 Credits			

五、必修环节

1.学术活动（1 学分）

包括参加国际国内学术会议、学术论坛、学术报告，以及在国际学术会议上做口头报告等，各专业根据实际情况制定可考核标准。

2.专业实践（1 学分）

“来华留学生的实践教学应当在满足专业要求的同时，与来华留学生的职业规划相结合，适应国际化人才培养的需要”，各专业根据实际情况制定可考核标准。

V. REQUIRED COMPONENTS

1. Academic Activities(1 credit)

Students are required to attend academic activities, such as meetings/forums, oral presentations in China or other countries.

2. Professional Practice(1 credit)

It is important for practical teaching of international students in China to not only meet professional requirements, but also be aligned with their career planning to ensure successful international talent cultivation. Assessable standards can be developed based on actual situations.

六、培养环节及学位论文

留学研究生培养过程中相关环节及学位论文工作包括开题答辩、中期检查、科研成果审核，论文文字重复率检测、匿名评审、答辩。具体要求详见《北京工商大学硕士研究生学位论文管理办法》、《北京工商大学来华留学研究生博士、硕士学位授予工作细则》、《北京工商大学博士、硕士在研期间创新成果要求》。

VI. TRAINING COMPONENTS AND REQUIREMENTS FOR THE DISSERTATION

The dissertation related work for international students includes capstone presentation, medium-term inspection, review of scientific research achievements, text repetition rate detection, blind review and dissertation defence. It is helpful to refer to specific regulations for more detailed requirements, such as Regulations of Graduate Dissertation for International Students at Beijing Technology and Business University, Regulations of Degree Awarding for International Students at Beijing Technology and Business University (Trial Implementation)。

七、教学大纲

课程教学大纲内容包括课程编码、课程名称、学时、学分、教学目标、教学方式、考核方式、适用学科专业、先修课程、主要教学内容和学时分配、参考文献等。

VII. PROGRAM SYLLABUS

The content of the program syllabus includes the course code, course name, class hours, credits, teaching objectives, teaching methods, assessment methods, applicable disciplines, prerequisite courses, main teaching content and class hours allocation, references, etc.

八、授课语言

英文

VIII. LANGUAGE OF INSTRUCTION

English

计算机与人工智能学院

电子信息（计算机技术）(085404) 硕士留学研究生培养方案

Training Program for International Graduate Students Master of Electronic Information (Computer Technology) (085404)

授予学位类别：电子信息

专业学位类别代码及名称：0854 电子信息

专业学位领域代码及名称：085404 计算机技术

制订单位：计算机与人工智能学院

一、培养目标

培养从事计算机应用、数据分析、数据科学、软件工程、大型软件开发和设计等方面工作的高级专业人才。

（一）学习和了解中国文化及其国家特色；遵守中国、国际法律法规，树立科学发展观；有高尚的科学道德和良好的合作精神；热爱科学，遵纪守法，品行端正，能积极为国际现代化建设事业服务。熟悉中国历史、地理、社会、经济等中国国情和文化基本知识，了解中国政治制度和外交政策，理解中国社会主流价值观和公共道德观念，形成良好的法治观念和道德意识。

（二）具有计算机科学、信息处理、人工智能等领域坚实的基础理论和系统的专门知识，熟练掌握计算机科学的基本理论和方法、计算机应用技术和系统设计方法，具备大型软件与信息、控制系统的研究和设计能力，在计算机工程领域内具有独立从事计算机应用系统设计、实施、开发、工程管理等能力。

（三）具有团队合作精神和诚信意识，有较强的创新精神和创新能力。

I. TRAINING OBJECTIVES

The objective of the program is to train professionals in computer application, data analysis, data science, software engineering, and large-scale software development and design. During this process, students will:

1. Understand China's national conditions such as Chinese culture, history, society, and economy, and understand China's political system and foreign policy; Establish a scientific outlook on development and serve the cause of international modernization; Understand the mainstream values and public morals of Chinese society, have the concept of the rule of law and moral awareness and abide by the law.

2. Master the knowledge of fundamental theories and systems in the fields of computer science, information processing, artificial intelligence, etc.; Understand the fundamental theories and methodologies of computer science, computer application technology and system design; Have the research and design capability for large-scale software and information and control systems; Have the independent capability in computer application system design, implementation, development, project management, etc., in the field of

computer engineering.

3. Have teamwork spirit and credit awareness, and have a strong creative spirit and innovative ability.

二、类别领域简介与研究方向

学科包括以下研究方向：

（一）大数据可视分析

本研究方向以食品、金融和商业领域中的大数据为主要研究对象，综合运用统计学习、数据挖掘、可视化、人机交互、并行计算理论，重点研究多维数据、关系数据、时间序列数据、空间数据、文本数据等大规模数据的存储、表示和可视分析模型，并行处理算法，以及可视分析平台和工具的构建方法，解决食品安全、金融分析、商业运营中大数据的可视表示、交互分析和辅助决策问题。

（二）商业物联网

本研究方向以构建面向食品、金融、商业领域的物联网系统为目标，将领域信息传感设备及系统接入互联网，形成统一的平台，不但实现各种设备的无缝连接，以及人与环境之间的感知、沟通和对话，还要在人机与环境之间建立一种协调统一的关系，并在掌握领域数据基础上，开展相关应用。本方向涉及多个学术研究领域，包括传感器网络、无线移动计算、系统软件、嵌入式系统、环境感知计算、人机交互、数据信息处理、可信性和安全性等。

（三）数据挖掘与社会计算

本研究方向面向食品安全、金融、互联网及社会网络等领域，以海量数据为对象，以探索和发现数据中潜在的规律和知识为核心，以预测未来事件为目标，采用大数据、统计学习、多维分析、社会网络、自然语言处理等理论，重点研究大数据处理、精准推荐模型与算法、热点事件传播与预测、群体行为分析以及金融预测等核心科学问题。研究成果可以帮助政府、企业将海量数据转化为知识，服务于政府网络舆情管理；服务于企业提升关键绩效，增强综合竞争力的智慧和能力；服务于人类理解自身行为规律。主要包括：面向商业与金融领域的大数据分析与挖掘、面向食品安全信息的网络信息分析与挖掘、面向公共安全和舆情的社会计算。

（四）移动计算与云服务

移动计算与云服务是随着移动互联网、分布式计算等技术发展而兴起的新方向，主要研究计算机或其它智能终端设备在无线环境下的计算模式及资源共享问题。研究目标是将有用、准确、及时的信息以服务的方式按需提供给任何时间、任何地点的任何客户。本方向重点开展基于云的资源整合和业务协作模型、方法、技术以及软件平台和实际系统的研究，通过建立无线环境下领域信息化基础设施，实现资源无缝共享和应用即时协同。本方向是软件工程与分布式计算、移动通信的融合与延伸。

II. DISCIPLINE INTRODUCTION AND RESEARCH DIRECTION

The research directions of the program include:

1. Big Data and Visual Analysis

The research on big data in the field of food, business and finance as the main research objects, using the methods of statistical learning, data mining, visualization, human-computer interaction, parallel computing theory, focuses on the research of large-scale data storage, representation and visual analysis model the parallel processing algorithm, construction method and visual analysis platform and tools about

multidimensional data, relational data, time series data, spatial data, text data. The research solves the problem of the visual representation, interaction analysis and assistant decision making in the field of food safety, financial analysis, and business operation.

2. Commercial Internet of Things

The research goal is to construct Internet of Things system for the fields of food, finance and business, embedded with electronics, software, sensors, actuators, and network connectivity that enable these objects to collect and exchange data, not only to achieve the seamless connection of various equipment, and between people and the environment perception, communication and dialogue, but also set up a kind of harmonious relationship between human and environment. This is the inter-discipline of wireless sensor networks, mobile computing, system software, embedded system, environment aware computing, human-computer interaction, data processing, information credibility and network safety etc.

3. Data Mining and Social Computing

This research area focuses on data mining of food security, financial, Internet, and social networks. In order to explorer data patterns and predict future events, statistical learning, multi-dimensional analysis theory, natural language processing and other large data processing methods are widely used.

4. Mobile Computing and Cloud Service

Mobile computing and cloud service is a new direction arising with the development of mobile internet and distributed computing technology. Research is focused on the computing models and resource sharing problems of computer or other intelligent terminal devices in a wireless environment. The ultimate goal is to be able to provide the useful, accurate and timely information as a service on demand of any customer at anytime and anywhere. The direction of research focuses on cloud resource integration and collaborative business models, methods, techniques and software platform and system. It is to achieve seamless sharing and instant collaboration application by establishing a wireless environment in the field of information technology infrastructure and resources. This direction is an integration and extension of software engineering, distributed computing and mobile communications.

三、学制和学习年限

学制为 3 年，学习年限最长不得超过 5 年。

III. LENGTH OF STUDY

This is a three-year degree. If necessary, the duration of the study could be extended to no more than five years.

四、课程设置与学分要求

课程类别	学分要求	课程类别	学分要求
公共课	14	基础课	6
专业课	6	选修课	≥4
必修环节	2	总学分	≥32

学分说明	1．必修环节为具体要求见六、必修环节。 2．攻读本专业学位的留学研究生总学分不得少于 32 学分。

留学研究生课程设置及学分要求

类别	课程编码	课程名称	学分	学时	开课学期	是否必修
公共课	085404IMG2001	中国概况	2	32	1	必修
	085404IMG2002	汉语（一级）	4	64	1	必修
	085404IMG2003	汉语（二级）	4	64	2	必修
	085404IMG2004	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	085404IMJ2001	高级计算机图形学	2	32	3	必修
	085406IMJ2002	高级计算机网络	2	32	1	必修
	085404IMJ2002	机器学习	2	32	2	必修
	应修		6 学分			
专业课	085404IMZ2001	大数据处理技术	2	32	2	必修
	085406IMZ2001	物联网技术与信息融合	2	32	2	必修
	085404IMZ2002	数据科学与工程	2	32	3	必修
	应修		6 学分			
选修课	085404IMX2001	数据库与数据挖掘	2	32	1	选修
	085406IMX2001	Python 编程训练	2	32	1	选修
	085404IMX2002	深度学习	2	32	2	选修
	085404IMX2005	计算机科学前沿	2	32	3	必选
	085404IMX2003	信息可视化技术	2	32	3	选修
	085404IMX1004	科技论文写作	1	16	4	选修
	应修		≥4 学分			
课程总学分要求			≥30 学分			

IV. THE CURRICULUM AND CREDITS REQUIREMENT

Course Classification	Credits Requirement	Course Classification	Credits Requirement
Public Course	14	Basic Courses	6
Discipline Core Course	6	Electives	≥4
Required Components	2	Total Credits	≥32
Credit description	1. For the Required Components, please see “5.Required Components” for more details. 2. The total number of credits shall not be less than 32 credits.		

Course Classification	Course Code	Course Title	Credits	Course Hours	Semester	Compulsory /Elective

Public Courses	085404IMG2001	Chinese Culture	2	32	1	Compulsory
	085404IMG2002	HSK (Level I)	4	64	1	Compulsory
	085404IMG2003	HSK (Level II)	4	64	2	Compulsory
	085404IMG2004	HSK (Level III)	4	64	3	Compulsory
	Credits Requirement		14 Credits			
Basic Courses	085404IMJ2001	Advanced Computer Graphics	2	32	3	Compulsory
	085406IMJ2002	Advanced Computer Networks	2	32	1	Compulsory
	085404IMJ2002	Machine Learning	2	32	2	Compulsory
	Credits Requirement		6 Credits			
Discipline Core Course	085404IMZ2001	Big Data Processing	2	32	2	Compulsory
	085406IMZ2001	Internet of Things and information fusion	2	32	2	Compulsory
	085404IMZ2002	Data Science and Engineering	2	32	3	Compulsory
	Credits Requirement		6 Credits			
Major Elective Courses	085404IMX2001	Database and Data Mining	2	32	1	Elective
	085406IMX2001	Python Programming Training	2	32	1	Elective
	085404IMX2002	Deep Learning	2	32	2	Elective
	085404IMX2005	Computer Science Frontier	2	32	3	Elective
	085404IMX2003	Information Visualization	2	32	3	Elective
	085404IMX1004	Academic Writing	1	16	4	Elective
	Credits Requirement		≥4 Credits			
Total Credits			≥30 Credits			

五、必修环节

（一）学术活动（1 学分）

学生应在学习期间积极参加国际国内学术会议、学术论坛、学术报告，以及在国际学术会议上做口头报告等。学生需提交至少一次学术活动报告。

（二）专业实践（1 学分）

安排在第 6 学期，由实践导师指导调研，根据本专业的前沿研究方向进行选题，完成学时不少于 6 个月 144 学时的研究专题实践。学生需要上交实践报告，考核合格后获得学分。

V. REQUIRED COMPONENTS

1. Academic activities (1 credit)

Students should actively participate in academic activities including international or domestic academic conferences, seminars, academic reports, presentation in academic conferences, etc. Students are required to submit at least one academic activity report.

2. Professional practice (1 credit)

This professional practice is arranged in the sixth semester guided by a supervisor. The topic selection is to be aligned with cutting-edge research directions. The duration of this practice should be no less than 6 months and 144 hours. The student is required to submit a report for this practice, and the credit points will be granted if the report passes the assessment.

六、培养环节及学位论文

专业学位硕士研究生培养过程中相关环节及学位论文工作包括开题答辩、中期检查、科研成果审核，论文文字重复率检测、匿名评审、答辩。具体要求详见《北京工商大学专业学位硕士研究生学位论文管理办法》、《北京工商大学研究生学位论文文字重复率检测管理办法》、《北京工商大学博士、硕士学位授予办法》。

VI. TRAINING COMPONENTS AND REQUIREMENTS FOR THE DISSERTATION

The relevant procedures and thesis work involved in the training process for professional master's degree students include: proposal defense, mid-term examination, verification of research achievements, duplicate text similarity detection, double-blind review, and the final thesis defense. For specific requirements, please refer to the “Management Measures for Professional Master's Degree Theses of Beijing Technology and Business University”, “the Management Measures for Duplicate Text Detection in Graduate Theses of Beijing Technology and Business University”, “and the Regulations on the Conferment of Doctoral and Master's Degrees of Beijing Technology and Business University”

七、教学大纲

课程教学大纲内容包括课程编码、课程名称、学时、学分、教学目标、教学方式、考核方式、适用学科专业、先修课程、主要教学内容和学时分配、参考文献等。

VII. PROGRAM SYLLABUS

The content of the program syllabus includes the course code, course name, class hours, credits, teaching objectives, teaching methods, assessment methods, applicable disciplines, prerequisite courses, main teaching content and class hours allocation, references, etc.

八、授课语言

英文

VIII. LANGUAGE OF INSTRUCTION

English

电子信息（控制工程）(085406) 硕士留学研究生培养方案

Training Program for International Graduate Students Master of Electronic Information (Control Engineering) (085406)

授予学位类别：电子信息

专业学位类别代码及名称：0854 电子信息

专业学位领域代码及名称：085406 控制工程

制订单位：计算机与人工智能学院

一、培养目标

专业硕士研究生的培养必须坚持德、智、体全面发展的方针，在整个培养过程中应该强调基础理论和专业知识的学习，同时，强调工程能力的培养，重视综合素质、创新能力和创业精神的培养，提高分析问题和解决问题的能力。

（一）了解中国文化、历史、社会、经济等中国国情，了解中国政治制度和外交政策。树立科学发展观，为国际现代化建设事业服务。理解中国社会主流价值观和公共道德观念，具有法治观念和道德意识、遵纪守法。

（二）培养从事电子信息领域的基于计算机技术的自动控制系统设计与开发、智能信息处理等方面的高层次工程技术和工程管理人才。掌握控制工程、信息处理、人工智能等领域基础理论和专门知识；具有开发和应用物联网、信息处理系统、计算机网络的能力；能够胜任本学科相关领域的专题研究、工程项目开发设计和实施工作。

（三）具有团队合作精神和诚信意识，具有创新精神和创新能力。

I. TRAINING OBJECTIVES

Cultivation of professional graduate students adhere to the overall development of morality, intelligence, and sports. Throughout the training process, focus on fundamental theories and professional knowledge. At the same time, we emphasize the cultivation of engineering ability, comprehensive quality, innovation ability, and entrepreneurial spirit, and improve the ability to analyze and solve problems. During this process, students will:

1. Understand China's national conditions such as Chinese culture, history, society, and economy, and understand China's political system and foreign policy; Establish a scientific outlook on development and serve the cause of international modernization; Understand the mainstream values and public morals of Chinese society, have the concept of the rule of law and moral awareness and abide by the law.

2. Cultivate high-level engineering technology and engineering management talents engaged in the design and development of automatic control systems based on computer technology and intelligent

information processing in the field of electronic information. Master the knowledge of basic theories and systems in the fields of control science and technology, information processing, artificial intelligence, etc.; Have the knowledge ability to develop the Internet of Things technology, information processing system, and computer network; Be capable of special subject research and engineering implementation in related fields, and can be engaged in scientific research and actual engineering project development.

3. Healthy and positive, teamwork spirit and credit awareness, and have a strong creative spirit and innovative ability.

二、类别领域简介与研究方向

控制工程领域以控制论、信息论和系统论为基础，以工程、经济、社会等系统为对象，综合运用现代数学方法及计算机、网络、通信、检测等技术，研究系统的建模、分析、控制、设计和实现的理论、方法和技术，是面向现代工业、农业及其他社会经济等领域自动化、智能化、信息化需求的重要工程领域。北京工商大学电子信息（控制工程领域）专业是伴随着本校控制科学与工程学科的发展而建立的。近年来，本专业硕士领域逐渐形成以下三个主要培养方向：

（一）复杂系统建模与控制

本方向围绕工业生产、环境安全、物流系统中的复杂系统控制问题，综合运用智能控制、预测控制与优化控制等理论和方法，重点研究复杂系统建模、智能测控与预测预警技术，致力于实现面向管控一体的智能优化决策。主要研究内容包括数据驱动建模与系统辨识、先进控制策略及其工程实现、复杂系统优化调度与协同控制等。目前在轻工业生产过程智能控制、水环境智能建模与分析、食品安全预警应急防控等方面形成了特色与优势。

（二）现代测控技术与装置

本方向围绕基于物联网的检测仪表与智能化装置，综合运用信息技术、测控技术与光电检测等理论和方法，重点研究网络化测控融合、远程监测与软测量、食品与农产品品质快速无损检测等关键技术，致力于构建面向不同领域的智能测控系统。主要研究内容包括多传感器融合与传感器网络、工业过程参数软测量与在线预报、光谱/色谱分析、电子鼻/舌智能感知、嵌入式智能测控装置开发等。目前在工业互联网测控集成、水环境安全在线监测、轻工业生产过程智能测控、食品及农副产品品质无损判别等方面形成了特色与优势。

（三）智能感知与自主系统

本方向围绕跨领域的智能感知、分类与预测问题，综合运用综合运用模式识别、机器学习与多源信息融合等理论和方法，重点研究计算机视觉、光电无损检测信息处理、机器人感知与控制等技术，致力于提升智能系统在复杂场景中的自主感知与决策能力。主要研究内容包括图像与视频的获取处理与理解、机器学习与深度学习算法、多源异构数据融合与知识发现、机器人视觉 SLAM 与自主导航等。目前在食品安全无损检测信息处理、轻工业产品与农副产品品质特征识别、移动机器人运动感知与导航等方面形成了特色与优势。

II. DISCIPLINE INTRODUCTION AND RESEARCH DIRECTION

Control Engineering is an important engineering discipline that is based on control theory, information theory, and systems theory. Taking engineering, economic, social, and other complex systems as research

objects, it integrates modern mathematical methods with advanced technologies in computing, networking, communication, sensing, and measurement to investigate the theories, methodologies, and technologies related to system modeling, analysis, control, design, and implementation. It serves as a key engineering field supporting the development of automation, intelligence, and informatization in modern industries, agriculture, and other social and economic sectors.

The Electronic Information (Control Engineering) program at Beijing Technology and Business University (BTBU) was established alongside the development of the university's discipline of Control Science and Engineering. In recent years, the master's program in this field has gradually developed three major research directions as follows:

1. Complex System Modeling and Control

This research direction focuses on control problems of complex systems in industrial production, environmental safety, and logistics systems. By comprehensively applying theories and methodologies including intelligent control, predictive control, and optimal control, it mainly investigates technologies related to complex system modeling, intelligent measurement and control, and predictive warning and risk prevention, aiming to achieve intelligent optimization decision-making through integrated management and control.

The main research topics include:

Data-driven modeling and system identification;

Advanced control strategies and their engineering implementation;

Optimal scheduling and coordinated control of complex systems.

Currently, this research direction has developed distinctive strengths and advantages in areas such as:

Intelligent control of light industry production processes;

Intelligent modeling and analysis of water environmental systems;

Early warning, emergency response, and risk prevention technologies for food safety.

2. Modern Measurement, Control Technologies and Intelligent Devices

This research direction focuses on IoT-based measurement instruments and intelligent devices. By integrating theories and methodologies in information technology, measurement and control technology, and optoelectronic sensing, it mainly investigates key technologies including networked measurement and control integration, remote monitoring and soft sensing, and rapid non-destructive quality inspection of food and agricultural products, aiming to develop intelligent measurement and control systems for various application fields.

The main research topics include:

Multi-sensor fusion and sensor networks;

Soft sensing and online prediction of industrial process parameters;

Spectroscopic and chromatographic analysis technologies;

Intelligent sensing technologies based on electronic noses and electronic tongues;

Development of embedded intelligent measurement and control devices.

Currently, this research direction has developed distinctive strengths and advantages in areas such as:

Measurement and control integration for industrial Internet applications;

Online monitoring of water environmental safety;

Intelligent measurement and control of light industry production processes;

Non-destructive quality evaluation of food and agricultural products.

3. Intelligent Perception and Autonomous Systems

This research direction focuses on intelligent perception, classification, and prediction problems in interdisciplinary fields. By comprehensively applying theories and methods including pattern recognition, machine learning, and multi-source information fusion, it mainly investigates technologies such as computer vision, information processing for optoelectronic non-destructive inspection, and robotic perception and control, aiming to enhance the autonomous perception and decision-making capabilities of intelligent systems in complex environments.

The main research topics include:

Image and video acquisition, processing, and understanding;

Machine learning and deep learning algorithms;

Multi-source heterogeneous data fusion and knowledge discovery;

Robot visual SLAM and autonomous navigation.

Currently, this research direction has developed distinctive strengths and advantages in areas such as:

Information processing for non-destructive food safety inspection;

Quality feature recognition of light industrial products and agricultural products;

Motion perception and navigation of mobile robots.

三、学制和学习年限

本专业学位研究生学制 3 年，最长修业年限 5 年。

III. LENGTH OF STUDY

The normal study duration for this program is three years. And the maximum length is five years.

四、课程设置与学分要求

表 1 留学研究生课程总学分说明

课程类别	学分要求	课程类别	学分要求
公共课	14	基础课	≥4
专业课	6	选修课	≥6
必修环节	2	总学分	≥32

表 2 留学研究生课程设置及学分要求

类别	课程编码	课程名称	学分	学时	开课学期	是否必修
公共课	085406IMG2001	中国概况	2	32	1	必修
	085406IMG4002	汉语（一级）	4	64	1	必修

	085406IMG4003	汉语（二级）	4	64	2	必修
	085406IMG4004	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	085406IMJ2001	控制系统仿真及应用	2	32	1	3 选 2
	085406IMJ2002	高级计算机网络	2	32	1	
	085406IMJ2003	线性控制系统	2	32	2	
	应修		≥4 学分			
专业课	085404IMJ2002	机器学习	2	32	2	必修
	085406IMZ2001	物联网技术与信息融合	2	32	2	必修
	085406IMZ2002	智能控制技术	2	32	2	必修
	应修		6 学分			
选修课	085404IMX2001	数据库与数据挖掘	2	32	1	6 选 3
	085406IMX2001	python 编程训练	2	32	1	
	085404IMX1004	科技论文写作	1	16	3	
	085404IMZ2001	大数据处理技术	2	32	2	
	085406IMX2002	深度学习	2	32	2	
	085406IMX2003	图像工程	2	32	2	
	应修		≥6 学分			
课程总学分要求			≥30 学分			

IV. THE CURRICULUM AND CREDITS REQUIREMENT

Table 1 Description of total credits

Course Classification	Credits Requirement	Course Classification	Credits Requirement
Public Course	14	Basic Courses	≥4
Discipline Core Course	6	Major Elective Courses	≥6
Required Components	2	Total Credits	≥32

Table 2 Curriculum and credit requirements

Course Classification	Course Code	Course Title	Credits	Course Hours	Semester	Compulsory /Elective
Public Courses	085406IMG2001	Chinese Culture	2	32	1	Compulsory
	085406IMG4002	HSK（Level I）	4	64	1	Compulsory
	085406IMG4003	HSK（Level II）	4	64	2	Compulsory
	085406IMG4004	HSK（Level III）	4	64	3	Compulsory
	Credits Requirement		14 Credits			
Basic Courses	085406IMJ2001	Simulation and Application of Control	2	32	1	Select 2 courses from

		System				3 courses
	085406IMJ2002	Advanced Computer Networks	2	32	1	
	085406IMJ2003	Linear Control System	2	32	2	
	Credits Requirement		≥4 Credits			
Discipline Core Courses	085404IMJ2002	Machine Learning	2	32	2	Compulsory
	085406IMZ2001	Internet of Things and information fusion	2	32	2	Compulsory
	085406IMZ2002	Intelligent Control Technology	2	32	2	Compulsory
	Credits Requirement		6 Credits			
Major Elective Courses	085404IMX2001	Database and Data Mining	2	32	1	Select 3 courses from 6 courses
	085406IMX2001	Python Programming Training	2	32	1	
	085404IMX1004	Science and Technology Essay Writing	1	16	3	
	085404IMZ2001	Big data processing	2	32	2	
	085406IMX2002	Deep Learning	2	32	2	
	085406IMX2003	Image Engineering	2	32	2	
	Credits Requirement		≥6 Credits			
Total Credits			≥30 Credits			

五、必修环节

（一）学术活动（1 学分）

包括参加国际国内学术会议、学术论坛、学术报告，以及在国际学术会议上做口头报告等。

（二）专业实践（1 学分）

留学生的实践教学应当在满足专业要求的同时，与留学生的职业规划相结合，适应国际化人才培养的需要。针对具体控制工程应用领域与任务选择专业实践内容，通过专业实习、开发应用系统、完成软、硬件设计等形式，完成智能系统控制技术、计算机应用技术的创新实践训练，提升专业硕士学生的工程实践能力。

V. REQUIRED COMPONENTS

1. Academic activities (1 credit)

Including participation in international and domestic academic conferences, academic forums, academic reports, and oral presentations at international academic conferences, etc.

2. Professional practice (1 credit)

The practical teaching of international students in China should meet the professional requirements and

be combined with the career planning of the international students to meet the needs of international talent training. Students should select professional practice content for control engineering application fields and complete innovative, practical training using intelligent system control and computer application technology. Professional engineering practice is improved through professional practice, developing application systems, and completing the software and hardware design.

六、培养环节及学位论文

留学研究生培养过程中相关环节及学位论文工作包括开题答辩、中期检查、科研成果审核，论文文字重复率检测、匿名评审、答辩。具体要求详见《北京工商大学博士研究生学位论文管理办法》、《北京工商大学来华留学研究生博士、硕士学位授予工作细则》。

VI. TRAINING COMPONENTS AND REQUIREMENTS FOR THE DISSERTATION

Related links and dissertation work in the training process of overseas graduate students include topic-opening defense, mid-term inspection, review of scientific research results, test of the repetition rate of thesis text, anonymous review and defense. For specific requirements, please refer to the "Administrative Measures for Doctoral Dissertations of Beijing Technology and Business University" and "Working Rules for Granting Doctorate and Master Degrees for Postgraduates of Beijing Technology and Business University (Trial).

七、教学大纲

课程教学大纲内容包括课程编码、课程名称、学时、学分、教学目标、教学方式、考核方式、适用学科专业、先修课程、主要教学内容和学时分配、参考文献等。

VII. PROGRAM SYLLABUS

The content of the program syllabus includes the course code, course name, class hours, credits, teaching objectives, teaching methods, assessment methods, applicable disciplines, prerequisite courses, main teaching content and class hours allocation, references, etc.

八、授课语言

英文

VIII. LANGUAGE OF INSTRUCTION

English

电子信息（人工智能）(085410) 硕士留学研究生培养方案

Training Program for International Graduate Students Master of Electronic Information (Artificial Intelligence) (085410)

授予学位类别：电子信息

专业学位类别代码及名称：0854 电子信息

专业学位领域代码及名称：085410 人工智能

制订单位：计算机与人工智能学院

一、培养目标

专业硕士研究生的培养必须坚持德、智、体全面发展的方针，在整个培养过程中强调基础理论和专业知识的学习同时，强调工程能力的培养，重视综合素质、创新能力和创业精神的培养，提高分析问题和解决问题的能力。

（一）了解中国文化、历史、社会、法律、中国政治制度和外交政策等中国国情，具备较好的中文书写、听说能力。树立科学发展观，为国际现代化建设事业服务。理解中国社会主流价值观和公共道德观念，具有法治观念和道德意识，遵纪守法。

（二）培养从事电子信息领域的人工智能技术、智能信息处理技术及其应用系统的设计、开发的高层次工程技术人才。掌握人工智能、控制工程、信息处理、计算机科学等领域基础理论和专门知识；具有开发和应用智能系统、物联网、信息处理系统的能力；能够胜任本学科相关领域的专题研究、工程项目开发设计和实施工作。

（三）身心健康，具有团队合作精神和诚信意识，具有国际视野，能进行跨文化交流，拥有自主终身学习能力。

I. TRAINING OBJECTIVES

Cultivation of professional graduate students must adhere to the overall development of morality, intelligence, and sports. Throughout the training process, focus on fundamental theories and professional knowledge. At the same time, we emphasize the cultivation of engineering ability, comprehensive quality, innovation ability, and entrepreneurial spirit, and improve the ability to analyze and solve problems. During this process, students will:

1. Understand China's national conditions such as Chinese culture, history, society, and economy, have good Chinese writing and communication skills, and understand China's political system and foreign policy; Establish a scientific outlook on development and serve the cause of international modernization; Understand the mainstream values and public morals of Chinese society, have the concept of the rule of law and moral awareness and abide by the law.

2. Cultivate high-level engineering and technical personnel engaged in the design and development of artificial intelligence technology, intelligent information processing technology, and their application systems in the field of electronic information. Master the basic theory and expertise in artificial intelligence, control engineering, information processing, and computer science etc.; Have the ability to develop and apply intelligent systems, Internet of Things, and information processing systems; Be competent in special research, engineering project development, design, and implementation in related fields of this discipline.

3. Physical and mental health, teamwork spirit and integrity awareness, international vision, cross-cultural communication, and independent lifelong learning ability.

二、类别领域简介与研究方向

人工智能领域以控制科学、计算机科学、脑科学与认知科学等为理论基础，致力于模拟、延伸和扩展人类智能，综合运用数学方法及机器学习、计算机视觉、自然语言处理等技术，研究智能信息的获取、处理、理解、决策与生成的理论、方法和技术，是面向各行业智能化转型升级需求的重要工程领域。北京工商大学电子信息（人工智能领域）专业依托控制科学与工程学科的发展而建设，近年来，本专业硕士领域逐渐形成以下三个主要培养方向：

（一）智能感知与机器视觉

本方向围绕多模态感知与计算机视觉，综合运用深度学习、图像处理与传感器融合等理论和方法，重点研究多模态数据协同感知、图像/视频的获取分析与识别技术，实现面向复杂场景的高精度智能感知。主要研究内容包括多传感器融合感知、图像与视频特征提取与理解、三维重建与视觉测量、细粒度视觉分类与异常检测等。目前在多传感器融合感知、大型场景与显微图像三维重建、细粒度纹理分类与缺陷检测、医学影像可视化分析等方面形成了特色与优势。

（二）数据智能与可信计算

本方向围绕多源异构数据的可信流通与智能处理，综合运用区块链、分布式计算、密码学与机器学习等理论和方法，结合标识解析与智能合约技术，重点研究数据的可信采集、安全存储、隐私保护与智能共享机制。主要研究内容包括区块链共识机制与智能合约、隐私计算与联邦学习、多源数据融合与知识发现等。目前在工业互联网数据可信流通、食品安全全链条追溯、智能金融风控与隐私计算等方面形成了特色与优势。

（三）边缘计算与智能系统

本方向围绕边缘计算与智能无人系统，综合运用边缘智能、状态估计、深度学习与信息融合等理论和方法，重点研究端边云协同的高效计算架构、复杂环境下无人系统的环境感知与自主决策技术，以及智能化装备的系统集成。主要研究内容包括边缘计算架构与端边云协同计算、无人系统智能感知与建模、路径规划与任务决策、健康评估与容错控制等。目前在端边云协同智能计算、无人系统智能感知与建模、智能化装备集成等方面形成了特色与优势。

II. DISCIPLINE INTRODUCTION AND RESEARCH DIRECTION

Artificial Intelligence (AI) is an important engineering field that is grounded in control science, computer science, brain science, and cognitive science. It aims to simulate, augment, and extend human intelligence by integrating mathematical methods with advanced technologies such as machine learning,

computer vision, and natural language processing. AI investigates the theories, methodologies, and technologies for the acquisition, processing, understanding, decision-making, and generation of intelligent information, and serves as a key engineering discipline supporting intelligent transformation and upgrading across various industries.

The Electronic Information (Artificial Intelligence) program at Beijing Technology and Business University (BTBU) is developed based on the advancement of the university's discipline of Control Science and Engineering. In recent years, the master's program in this field has gradually developed three major research directions as follows:

1. Intelligent Perception and Machine Vision

This research direction focuses on multimodal perception and computer vision. By comprehensively applying theories and methodologies including deep learning, image processing, and sensor fusion, it mainly investigates technologies for collaborative perception of multimodal data, image/video acquisition, analysis, and recognition, aiming to achieve high-precision intelligent perception in complex environments.

The main research topics include:

Multi-sensor fusion-based perception;

Image and video feature extraction and semantic understanding;

Three-dimensional reconstruction and visual measurement;

Fine-grained visual classification and anomaly detection.

Currently, this research direction has developed distinctive strengths and advantages in areas such as:

Multi-sensor fusion perception;

Three-dimensional reconstruction of large-scale scenes and microscopic images;

Fine-grained texture classification and defect detection;

Medical image visualization and intelligent analysis.

2. Data Intelligence and Trusted Computing

This research direction focuses on trusted circulation and intelligent processing of multi-source heterogeneous data. By comprehensively applying theories and methodologies including blockchain, distributed computing, cryptography, and machine learning, together with technologies such as identification and resolution systems and smart contracts, it mainly investigates mechanisms for trusted data acquisition, secure storage, privacy protection, and intelligent data sharing.

The main research topics include:

Blockchain consensus mechanisms and smart contracts;

Privacy-preserving computing and federated learning;

Multi-source data fusion and knowledge discovery.

Currently, this research direction has developed distinctive strengths and advantages in areas such as:

Trusted data circulation in industrial Internet environments;

Full-chain traceability and intelligent supervision of food safety;

Intelligent financial risk control and privacy-preserving computation.

3. Edge Computing and Intelligent Systems

This research direction focuses on edge computing and intelligent unmanned systems. By comprehensively applying theories and methodologies including edge intelligence, state estimation, deep learning, and information fusion, it mainly investigates efficient computing architectures based on end-edge-cloud collaboration, environmental perception and autonomous decision-making technologies for unmanned systems in complex environments, and system integration of intelligent equipment.

The main research topics include:

Edge computing architectures and end-edge-cloud collaborative computing;

Intelligent perception and modeling of unmanned systems;

Path planning and task decision-making;

Health assessment and fault-tolerant control.

Currently, this research direction has developed distinctive strengths and advantages in areas such as:

Intelligent computing based on end-edge-cloud collaboration;

Intelligent perception and modeling of unmanned systems;

Integration and application of intelligent equipment.

三、学制和学习年限

本专业学位研究生学制 3 年，最长修业年限 5 年。

III. LENGTH OF STUDY

The normal study duration for this program is three years. And the maximum length is five years.

四、课程设置与学分要求

表 1 留学研究生课程总学分说明

课程类别	学分要求	课程类别	学分要求
公共课	14	基础课	≥4
专业课	6	选修课	≥6
必修环节	2	总学分	≥32

表 2 留学研究生课程设置及学分要求

类别	课程编码	课程名称	学分	学时	开课学期	是否必修
公共课	085410IMG2001	中国概况	2	32	1	必修
	085410IMG4002	汉语（一级）	4	64	1	必修
	085410IMG4003	汉语（二级）	4	64	2	必修
	085410IMG4004	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	085410IMJ2001	模式识别与神经网络	2	32	1	必修
	085404IMJ2002	机器学习	2	32	2	必修
	应修		4 学分			

专业课	085404IMX2002	深度学习	2	32	2	必修
	085406IMZ2001	物联网技术与信息融合	2	32	2	必修
	085406IMJ2002	高级计算机网络	2	32	1	必修
	应修		6 学分			
选修课	085404IMX2001	数据库与数据挖掘	2	32	1	6 选 3
	085406IMX2001	python 编程训练	2	32	1	
	085406IMJ2001	控制系统仿真及应用	2	32	1	
	085404IMZ2001	大数据处理技术	2	32	2	
	085406IMZ2002	智能控制技术	2	32	2	
	085406IMX2003	图像工程	2	32	2	
	应修		≥6 学分			
课程总学分要求			≥30 学分			

IV. THE CURRICULUM AND CREDITS REQUIREMENT

Table 1 Description of total credits

Course Classification	Credits Requirement	Course Classification	Credits Requirement
Public Course	14	Basic Courses	4
Discipline Core Course	6	Major Elective Course	≥6
Required Components	2	Total Credits	≥32

Table 2 Curriculum and credit requirements

Course Classification	Course Code	Course Title	Credits	Course Hours	Semester	Compulsory/ Elective
Public Courses	085410IMG2001	Chinese Culture	2	32	1	Compulsory
	085410IMG4002	HSK（Level I）	4	64	1	Compulsory
	085410IMG4003	HSK（Level II）	4	64	2	Compulsory
	085410IMG4004	HSK（Level III）	4	64	3	Compulsory
	Credits Requirement		14 Credits			
Basic Courses	085410IMJ2001	Pattern Recognition and Neural Networks	2	32	1	Compulsory
	085404IMJ2002	Machine Learning	2	32	2	Compulsory
	Credits Requirement		4 Credits			
Discipline Core Courses	085404IMX2002	Deep Learning	2	32	2	Compulsory
	085406IMZ2001	Internet of Things and information fusion	2	32	2	Compulsory
	085406IMJ2002	Advanced Computer Networks	2	32	1	Compulsory

	Credits Requirement		6 Credits			
Major Elective Courses	085404IMX2001	Database and Data Mining	2	32	1	Select 3 courses from 6 courses
	085406IMX2001	Python Programming Training	2	32	1	
	085406IMJ2001	Simulation and Application of Control System	2	32	1	
	085404IMZ2001	Big data processing	2	32	2	
	085406IMZ2002	Intelligent Control Technology	2	32	2	
	085406IMX2003	Image Engineering	2	32	2	
	Credits Requirement		≥6 Credits			
Total Credits			≥30 Credits			

五、必修环节

（一）学术活动（1 学分）

包括参加国际国内学术会议、学术论坛、学术报告，以及在国际学术会议上做口头报告等。

（二）专业实践（1 学分）

留学生的实践教学由导师负责，应当在满足专业要求的同时，与留学生的职业规划相结合，适应国际化人才培养的需要。针对具体应用领域与任务选择专业实践内容，通过专业实习、开发应用系统、完成软、硬件设计等形式，完成人工智能技术的创新实践训练，提升专业硕士学生的工程实践能力。

V. REQUIRED COMPONENTS

1. Academic activities (1 credit)

Including participation in international and domestic academic conferences, academic forums, academic reports, and oral presentations at international academic conferences, etc.

2. Professional practice (1 credit)

The practical teaching of international students is under the tutor's responsibility, which should be combined with the career planning of international students while meeting the professional requirements to meet the needs of international talent training. Students can select professional practice content based on application fields and tasks. The engineering practice ability of professional master students is improved by completing the innovative practice training through professional practice, developing application systems, completing the software, hardware design, etc.

六、培养环节及学位论文

留学研究生培养过程中相关环节及学位论文工作包括开题答辩、中期检查、科研成果审核，论文文字重复率检测、匿名评审、答辩。具体要求详见《北京工商大学博士研究生学位论文管理办法》、《北京工商大学来华留学研究生博士、硕士学位授予工作细则》。

VI. TRAINING COMPONENTS AND REQUIREMENTS FOR THE DISSERTATION

Related links and dissertation work in the training process of overseas graduate students include topic-opening defense, mid-term inspection, review of scientific research results, test of the repetition rate of thesis text, anonymous review and defense. For specific requirements, please refer to the "Administrative Measures for Doctoral Dissertations of Beijing Technology and Business University" and "Working Rules for Granting Doctorate and Master Degrees for Postgraduates of Beijing Technology and Business University (Trial).

七、教学大纲

课程教学大纲内容包括课程编码、课程名称、学时、学分、教学目标、教学方式、考核方式、适用学科专业、先修课程、主要教学内容和学时分配、参考文献等。

VII. PROGRAM SYLLABUS

The content of the program syllabus includes the course code, course name, class hours, credits, teaching objectives, teaching methods, assessment methods, applicable disciplines, prerequisite courses, main teaching content and class hours allocation, references, etc.

八、授课语言

英文

VIII. LANGUAGE OF INSTRUCTION

English

机械（机械工程）(085501) 硕士留学研究生培养方案
Training Program for International Graduate Students
Master of Mechanical Engineering (085501)

授予学位类别：机械
专业学位类别代码及名称：0855 机械
专业学位领域代码及名称：085501 机械工程
制订单位：计算机与人工智能学院

一、培养目标

本专业培养的留学生应当熟悉中国历史、地理、社会、经济等中国国情和文化基本知识，热爱中国，了解中国政治制度和外交政策，理解中国社会主流价值观和公共道德观念，形成良好的法治观念和道德意识。能从事机械工程领域的研究、开发和设计等方面工作的高级专业人才。能扎实地掌握机械工程领域的基础知识和宽口径的专业知识，掌握现代机械设计理论和方法、现代制造技术及相关的试验、分析和维修理论及技术；具有较高的综合素质和创新能力，具有独立从事新产品开发设计、生产工艺设计、生产设备管理及使用维修能力，能为中外文化交流做出贡献。

I. TRAINING OBJECTIVES

International students trained in this major should be familiar with China's history, geography, society, economy and other basic knowledge of China's national conditions and culture, love China, understand China's political system and foreign policy, understand China's mainstream values and public morality, and form a good sense of rule of law and morality. Our objective is to train senior professionals for design, research and development in mechanical engineering. The professionals should be able to grasp the fundamental knowledge and broad professional knowledge in mechanical engineering, and modern theory and method of mechanical design, and modern technology of production, and related theory and technology for testing, analyzing and repairing. They should have higher comprehensive quality and innovative spirit, and also have the ability to perform research and development of new product, and work out production process, and manage and operate and repair equipment independently.

二、学科简介与研究方向

北京工商大学机械工程学科源于 1958 年的北京轻工业学院机械系，1981 年开始招收硕士研究生，2010 年开始招收培养全日制工程硕士专业学位研究生。本学科是国内较早培养轻工机械领域硕士研究生的高校之一，多年来培养了大批优秀的轻工机械领域的优秀人才，在轻工及食品加工及食品机械领域发挥着重要的作用，部分毕业生已经在啤酒灌装机械、缝制机械等领域成为领军学者。

本学科现有专任教师 50 人，其中教授 9 人，副教授 35 人，硕士生导师 36 人，45 名教师具有博士学位，占比 90%，25 名教师具有海外经历，占比 50%，是一支具有丰富的科研实践能力和高素质

的研究生导师队伍。

本专业领域针对机械工程的基础理论、基本方法、机械工程设计、制造及应用等方面进行科学研究和人才培养工作。主要包括以下 6 个研究方向。

（一）计算机辅助工程

主要研究领域为计算机技术的工程技术研究，机械创新设计与有限元计算分析，机械振动与噪声测试与分析，计算机辅助设计与制造、图像处理技术。重点研究机械工程各个生产环节的性能与安全可靠性分析，为机械产品的未来工作状态和运行行为进行模拟仿真与预测。

（二）食品加工与食品机械

主要研究领域为食品加工的原理和方法，基于现代设计理论和方法的食品机械设计。重点研究食品加工机理与方法、食品机械的设计原则、组成原理、结构特征，并采用先进的分析手段，通过计算机建模对机械系统进行仿真分析和研究，为食品机械的加工制作提供依据。

（三）轻工机械自动化设计及理论

主要研究领域为轻工机械自动化现代设计理论及轻工机械自动化先进传动技术。重点研究新型传动机构、轻工机械动力传动的节能与环保、轻工业机器人开发与应用研究、机器人新机型、仿生机械研究等。

（四）智能制造技术

主要研究领域为先进制造的理论和方法以及轻工机械和产品设计和制造的先进技术。重点研究包括加工制造中的逆向工程、3D 打印技术、轻工产品异型零件精确加工、动态检测、集成 CAD/CAM 系统、加工检测数据处理和网络控制、先进复合材料在轻工和食品机械及产品中的加工方法和应用等。

（五）轻工机械设备检测与控制

主要研究领域为轻工机电系统检测与控制的理论和方法以及声、光、电与轻工机械相互结合的机电一体化系统。重点研究传感器原理及测试技术、信号处理、计算机辅助检测与控制、视频检测及图像处理技术、轻工机械噪声测量与控制、计算机接口技术、智能控制理论与技术、数字控制技术和数控设备、PLC 控制及其总线技术等。

（六）汽车电子

主要研究领域为基于汽车结构的汽车电子控制技术及交通控制方法。重点研究汽车驱动理论和控制技术、汽车制动力分配控制理论和控制技术、汽车 ABS 控制系统性能检测原理和方法、汽车动力学特征建模、系统仿真和检测、汽车 ECU 模拟检测原理和方法、智能交通系统控制理论和技术等。

II. DISCIPLINE INTRODUCTION AND RESEARCH DIRECTION

The Department of Mechanical Engineering of Beijing Technology and Business University originated from the Mechanical Department of Beijing Institute of Light Industry in 1958. It began to enroll graduate students in 1981, and began to enroll and train full-time engineering master degree graduates in 2010. This subject is one of the earliest domestic universities to train postgraduates in the field of light industry machinery. Over the years, it has trained a large number of outstanding talents in the field of light industry machinery. It has played an important role in the field of light industry and food processing and food machinery. Graduates have become leading scholars in beer filling machinery, sewing machinery and other

fields.

There are 53 full-time teachers in this discipline, including 9 professors,33 associate professors, 34 master tutors, and 47 teachers with doctorate degrees, accounting for 90.6%.

The research is involved with basic theory and engineering application of mechanical design, and production, and process control of machine in mechanical engineering. It mainly includes six research areas described as follows.

2.1 Computer-aided engineering

The computer technology is applied to analyze and study the mechanical system in this area. It mainly includes engineering technology research of computer technology, mechanical innovative design and Finite Element Analysis, and mechanical vibration and noise testing & analyzing, and computer-aided design and manufacturing, and graphic processing technology. It focuses on the performance and safety reliability analysis of each production link of mechanical engineering to simulate and predict the future working state and operation behavior of mechanical products.

2.2 Food processing and food machinery

The main research areas are the principle and method of food processing, food machinery design based on modern design theory and method. It mainly includes food processing technology and principle and application, and design principle and composition and structural character of food machine, and simulating analysis of food machinery system.

2.3 Design & theory of automatic machine for light industry

The main research areas are modern design theory of light industry automatic machinery and advanced transmission technology of light industry automatic machinery. Focus on the research of new transmission mechanism, energy saving and environmental protection of light industrial machinery power transmission, development and application research of light industrial robots, new robot models, bionic machinery research, etc.

2.4 Intelligent manufacturing technology

The main research areas are the theory and methods of advanced manufacturing, as well as advanced technologies in the design and manufacture of light industrial machinery and products. Key research includes reverse seeking in processing and manufacturing, 3D printing technology, precise processing of special-shaped parts of light industrial products, dynamic inspection, integrated CAD/CAM system, data processing and network control of processing inspection, advanced composite materials in light industry and food machinery and products processing methods and applications, etc.

2.5 Testing and control of light machinery and equipment

The main research areas are the theory and method of light industry electromechanical system detection and control, and the electromechanical integration system combining sound, light, electricity and light industry machinery. Focus on the research of sensor principle and test technology, signal processing, computer-aided detection and control, video detection and image processing technology, light industrial machinery noise measurement and control, computer interface technology, intelligent control theory and

technology, digital control technology and numerical control equipment, PLC Control and its bus technology, etc.

2.6 Vehicle electronics

Composition and control and application of vehicle electronic system are studied in this area. It mainly includes driving theory and control technology of environmental protecting and energy saving vehicle, and control theory and technology of braking force distribution of vehicle, and principle and method of performance testing of vehicle ABS control system, and modeling of vehicle dynamics characteristics, and system simulating and testing, and testing principle and method of vehicle ECU simulation, and theory and technology of intelligent traffic system control.

三、学制和学习年限

本专业学位研究生学制 3 年，最长修业年限 5 年。

III. LENGTH OF STUDY

The normal study duration for this program is three years. And the maximum length is five years.

四、课程设置与学分要求

课程类别	学分要求	课程类别	学分要求
公共课	14	基础课	≥4
专业课	≥4	选修课	≥6
必修环节	2	总学分	≥30

类别	课程编码	课程名称	学分	学时	开课学期	是否必修
公共课	085501IMG2001	中国概况	2	32	1	必修
	085501IMG2002	汉语（一级）	4	64	1	必修
	085501IMG2003	汉语（二级）	4	64	2	选修
	085501IMG2004	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	085501IMJ2001	弹性力学	2	32	1	3 选 2
	085501IMJ2002	精密测量与测试技术	2	32	1	
	085501IMJ2003	机电控制技术	2	32	1	
	应修		≥4 学分			
专业课	085501IMZ2001	有限元分析	2	32	2	4 选 2
	085501IMZ2002	机器人机构学	2	32	2	
	085501IMZ2003	嵌入式计算机控制技术	2	32	2	
	085501IMZ2004	机械工程信号处理	2	32	2	
	应修		≥4 学分			
选修课	085501IMX2001	食品机械与工程	2	32	1	6 选 3

	085501IMX2002	食品装备与过程控制	2	32	1	
	085501IMX2003	计算机辅助设计与制造	2	32	2	
	085501IMX2004	现代制造工程	2	32	2	
	085501IMX2005	智能机器人技术	2	32	2	
	085501IMX2006	振动与模态分析	2	32	2	
	应修		≥6 学分			
课程总学分要求			≥28 学分			

说明：同学历留学生需从材料力学、理论力学、机械原理、机械设计 4 门课中补修 2 门课程，不计入学分。

IV. THE CURRICULUM AND CREDITS REQUIREMENT

Course Classification	Credit Requirement	Course Classification	Credit requirement
Public Courses	14	Basic Courses	≥4
Discipline Core Courses	≥4	Major Elective Courses	≥6
Required Components	2	Total Credits	≥30

Course Classification	Course Code	Course Title	Credits	Course Hours	Semester	Compulsory/ Elective
Public Courses	085501IMG2001	Chinese Culture	2	32	1	Compulsory
	085501IMG4002	HSK(Level I)	4	64	1	Compulsory
	085501IMG4003	HSK(Level II)	4	64	2	Compulsory
	085501IMG4004	HSK(Level III)	4	64	3	Compulsory
	Credits Requirement		14 Credits			
Basic Courses	085501IMJ2001	Elastic Mechanics	2	32	1	Select two courses from three courses
	085501IMJ2002	Technology of Precise Measurement & Testing	2	32	1	
	085501IMJ2003	Technology of Electromechanical Control	2	32	1	
	Credits Requirement		≥4 Credits			
Discipline Core Courses	085501IMZ2001	Finite Element Analysis	2	32	2	Select two courses from four courses
	085501IMZ2002	Mechanism of Robot	2	32	2	
	085501IMZ2003	Control Technology of Embedded Computer	2	32	2	
	085501IMZ2004	Signal Processing in Mechanical Engineering	2	32	2	
	Credits Requirement		≥4 Credits			

Major Elective Courses	085501IMX2001	Food Machinery & Engineering	2	32	1	Select three courses from six courses
	085501IMX2002	Food Equipment & Process Control	2	32	1	
	085501IMX2003	CAD&CAM	2	32	2	
	085501IMX2004	Modern Manufacturing Engineering	2	32	2	
	085501IMX2005	Technology of Intelligent Robot	2	32	2	
	085501IMX2006	Vibration and Modal Analysis	2	32	2	
	Credits Requirement		≥6 Credits			
Total Credits			≥28 Credits			

五、必修环节

（一）学术活动（1 学分）

包括参加国际国内学术会议、学术论坛、学术报告，以及在国际学术会议上做口头报告，或在学科内做学术演讲等。

（二）专业实践（1 学分）

“来华留学生的实践教学应当在满足专业要求的同时，与来华留学生的职业规划相结合，适应国际化人才培养的需要”，留学生在读期间，应参加实验室建设等相关工作，并参加学科或实验室内的学术交流活动。

V. REQUIRED COMPONENTS

1.Academic activities（1 Credit）

It includes participating in international and domestic academic conferences, academic forums, academic reports, and making oral reports at international academic conferences, etc. Each discipline should formulate assessment standards according to the actual situation.

2.Professional practice（1 Credit）

"The practical teaching of foreign students in China should meet the professional requirements, and be combined with the career planning of foreign students in China to meet the needs of international talent training." During their studies, foreign students should participate in laboratory construction and other related work, and participate in disciplines or academic exchange activities in the laboratory.

六、培养环节及学位论文

留学研究生培养过程中相关环节及学位论文工作包括开题答辩、中期检查、科研成果审核，论文文字重复率检测、匿名评审、答辩。具体要求详见《北京工商大学来华留学研究生博士、硕士学位授予工作细则》等学校相关文件。

VI. TRAINING COMPONENTS AND REQUIREMENTS FOR THE DISSERTATION

The relevant links and the thesis work in the process of cultivating overseas graduate students include thesis defense, mid-term inspection, scientific research results review, thesis text repetition rate detection, anonymous review, and defense. For specific requirements, please refer to "Working Rules for the Awarding of Doctoral and Master Degrees of Beijing International Business University for Studying in China (Trial)" and other relevant documents.

七、教学大纲

课程教学大纲内容包括课程编码、课程名称、学时、学分、教学目标、教学方式、考核方式、适用学科专业、先修课程、主要教学内容和学时分配、参考文献等。

VII. PROGRAM SYLLABUS

The content of the program syllabus includes the course code, course name, class hours, credits, teaching objectives, teaching methods, assessment methods, applicable disciplines, prerequisite courses, main teaching content and class hours allocation, references, etc.

八、授课语言

英文

VIII. LANGUAGE OF INSTRUCTION

English

语言与传播学院

新闻与传播（055200）硕士留学研究生培养方案

Training Program for International Graduate Students Master of Journalism and Communication (055200)

授予学位类别：新闻与传播

专业学位类别代码及名称：0552 新闻与传播

制订单位：语言与传播学院

一、培养目标

本研究生项目为新闻学、传播学领域培养高层次的应用型国际化专门人才，学生应系统掌握新闻传播理论知识，透彻理解各类媒体的性质及传播规律；熟练运用各种传播技能与方法，熟悉新媒体运营，擅长创作，懂得经营，具有现代新闻传播理念与国际化视野，且具备良好的新闻传播职业素养和跨文化传播能力。

具体要求：

（一）具备全球化视野、扎实的新闻传播学理论知识、调查研究能力和沟通表达能力，能独立解决新闻传播应用领域中的各种问题。

（二）具备国际化新闻传播人才的能力素养，谙熟各类传播媒介的应用特性，能够适应新技术变革 对新闻传播实践提出的新要求，尤其能够适应经济新闻、品牌传播、广告经营、视听传播等专门领域对复合实践能力的需求。具备一定的国际化媒体运营、项目管理和团队协调能力。

I. TRAINING OBJECTIVES

The goal of training program is to develop international high-level applied professionals for journalism and communication studies. Students should systematically master the knowledge of journalism and communication theory, thoroughly understand the nature and rules of various media platforms; skillfully use various communication skills and methods. They need to be familiar with new media operation and creation, understand business models, as well as modern communication concepts and international vision.

Specific requirements:

1.Students are required to consolidate their knowledge of journalism and communication theory, be proficient in investigative research and communication skills, and can independently address various issues in journalism and communication practice.

2.Students are required to be acquainted with the application characteristics of various media, be able to meet the new requirements brought by advanced technological changes, and strengthen their comprehensive practical capability for professional fields, such as economic news, brand communication, advertising management, and audiovisual communication.

3.Students are required to polish their certain international media operations, project management and team work skills.

二、领域简介

新闻与传播专业学位的人才培养的服务领域主要是传媒行业。包括：以经济新闻为主的新闻采 写编评实务，视听传播技能与方法，品牌传播、广告经营及新媒体的内容生产与运营。人才培养依 据移动互联网背景下媒介融合的新要求，针对各种媒介产品的生产制作、媒介运营以及新媒体运营三种能力展开，主要服务于各类传媒机构和企业的新闻宣传、公关、品牌推广。

II. OVERVIEW OF THE PROGRAM

The service areas for professional training in journalism and communication majors mainly focus on the media industry. Including: news writing and reviewing practices based on economic news, audio-visual communication skills and methods, brand communication, advertising operations and new media content production and operations. According to the new requirements of media integration in the age of mobile internet, training program is aimed at three abilities which includes media production, media operation and new media operation. The studies mainly serve the journalism, public relations and brand promotion of various media organizations and enterprises.

三、学制和学习年限

采用全日制学习方式，学制为 2 年，学习年限最长不得超过 4 年。不得申请提前毕业。

III. LENGTH OF STUDY

The full-time program can be completed with 2 years. The maximum time permitted is 4 years from the date of registration. Full-time master degree graduate candidates are not allowed to graduate in advance.

四、课程设置与学分要求

攻读本专业学位的国际研究生，总学分不得少于 35 学分：

课程学分：必修课不低于 23 学分，包括公共课 14 学分、基础课 5 学分、专业课 4 学分；

选修课程不低于 10 学分；

学术活动 1 学分；

专业实践 1 学分；

具体课程设置及学分要求见附表。

在完成以上规定学分的基础上，研究生还可在导师指导下选修校内其它学院开设的有关研究生课程。

课程类别	学分要求	课程类别	学分要求
公共课	14	基础课	5
专业课	4	选修课	≥10
必修环节	2	总学分	≥35

类别	课程编码	课程名称	学分	学时	开课学期	是否必修
公共课	055200IMG2001	中国概况	2	32	1	必修
	055200IMG4002	汉语（一级）	4	64	1	必修
	05 5200IMG4003	汉语（二级）	4	64	2	必修
	055200IMG4004	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	055200IMJ3001	传播研究方法	3	48	1	必修
	055200IMJ2002	新闻传播政策、法规与伦理研究	2	32	1	必修
	应修		5 学分			
专业课	055200IMZ2001	新媒体研究	2	32	1	必修
	055200IMZ2002	跨文化传播	2	32	1	必修
	应修		4 学分			
选修课	055200IMX2001	国际传播前沿	2	32	2	选修
	055200IMX2002	广告前沿研究	2	32	2	选修
	055200IMX2003	经济新闻实务	2	32	2	选修
	055200IMX2004	品牌传播策划	2	32	2	选修
	055200IMX2005	视听传播理论与实务	2	32	2	选修
	055200IMX2006	城市文化传播	2	32	3	选修
	055200IMX2007	危机传播	2	32	3	选修
	应修		≥10 学分			
必修环节	学术活动		1			必修
	专业实践		1		3-4	必修
	应修		2 学分			
学位论文	开题答辩			2-3		
	中期检查			3		
	毕业答辩			4		
总学分要求			≥35 学分			

IV. THE CURRICULUM AND CREDITS REQUIREMENT

For graduate students applying for this professional degree, the total credits shall not be less than 35 credits.

1.The compulsory courses are not less than 23 credits, including 14 credits for public courses, 5 credits for general courses, and 4 credits for professional courses;

2.The optional courses are not less than 10 credits;

3. 1 credit for academic activities;

4. 1credit of professional practice;

On the basis of the above required credits, graduate students can also choose to take relevant graduate courses offered by other colleges under the guidance of their supervisors.

Table Curriculum and Credit Requirements for Professional Postgraduates in Journalism and Communication

Course Types	Credit	Course Types	Credit
Public Course	14	Basic Course	5
Discipline Course	4	Major Elective Course	≥10
Required Components	2	Total Credits	≥35

Course Classification	Course Code	Course Title	Credits	Course Hours	Semester	Compulsory/ Elective
Public Courses	055200IMG2001	Chinese Culture	2	32	1	Compulsory
	055200IMG4002	HSK（ Level I)	4	64	1	Compulsory
	055200IMG4003	HSK（ Level II)	4	64	2	Compulsory
	055200IMG4004	HSK（ Level III)	4	64	3	Compulsory
	055200IMG2001	Chinese Culture	2	32	1	Compulsory
	Credits Requirement		14 Credits			
Basic Courses	055200IMJ3001	Research Method of Communication	3	48	1	Compulsory
	055200IMJ2002	Policy, Regulations and Ethics of Journalism and Communication	2	32	1	Compulsory
	Credits Requirement		5 Credits			
Discipline Courses	055200IMZ2001	New Media Studies	2	32	1	Compulsory
	055200IMZ2002	Cross-culture Communication	2	32	1	Compulsory
	Credits Requirement		4 Credits			
Major Elective Courses	055200IMX2001	Frontiers of International Communication	2	32	2	Elective
	055200IMX2002	Frontier Research on Advertising Issues	2	32	2	Elective
	055200IMX2003	Economic News Practice	2	32	2	Elective
	055200IMX2004	Brand Communication Planning	2	32	2	Elective
	055200IMX2005	Theory and Practice of Audio-visual	2	32	2	Elective

		Communication				
	055200IMX2006	Urban culture communication	2	32	3	Elective
	055200IMX2007	Crisis Communication	2	32	3	Elective
	Credits Requirement		≥10 Credits			
Required Components	Innovative Practice		1			Compulsory
	Professional Practice		1		3-4	Compulsory
	Credits Requirement		2 Credits			
Dissertation Works	Master Thesis Proposal			2-3		
	Mid-term examination			3		
	Master Thesis			4		
Total Credits			≥35 Credits			

Note: specific requirements refer to the corresponding requirements of domestic students at the same educational level

五、必修环节

（一）学术活动（1 学分）

参加国际国内学术会议、学术论坛、学术报告或行业前沿讲座至少 2 次，经导师审核认定获得学分。

（二）专业实践（1 学分）

研究生在导师指导下完成专业实践或实践调研，根据本专业的前沿研究方向进行选题，完成并提交实践报告，考核合格后获得学分。

V. REQUIRED COMPONENTS (2 CREDITS)

1. Academic Activities (1 credit)

Students are required to attend at least 2 lectures on the frontier topic of the industry, or participate in international and domestic academic conferences, academic forums, and academic reports. The practice activities should be checked and approved by the supervisor.

2. Professional practice (1 credit)

The practical learning experience of postgraduates should not only meet the professional requirements, but also be combined with students ' career planning to satisfy the needs of international talent training. Moreover, graduate students should work out under supervisors ' guidance, and submit a report for this practice. The topic selection is based on cutting-edge research directions of the major. Students can obtain

the credit after passing the assessment. The credit points will be granted if the report passes the assessment.

六 、培养环节及学位论文

留学研究生培养过程中相关环节及学位论文工作包括开题答辩、中期检查、论文文字重复率检测、

匿名评审、答辩。具体要求详见《北京工商大学来华留学生研究生博士、硕士学位授予工作细则》。

（一）学位论文选题和内容应坚持理论联系实际的原则，着眼于解决新闻传播领域的实际与实务问题。学位论文形式可以是学术性学位论文，也可以是调研报告、案例研究、专业作品等多种形式。学位论文选题应在第二学期结束前完成。

（二）学位论文开题不晚于第三学期初。学位论文中期检查应在第三学期结束前完成。具体要求详见《北京工商大学专业学位硕士研究生学位论文管理办法》。

（三）学位论文应在导师指导下由研究生本人独立完成。论文要有一定的工作量。论文要求资料可靠、理论正确、思路清晰，对所研究的课题有新的见解，同时表明论文作者具有综合运用基础理论和专门知识解决实际问题的能力。

（四）学位论文须严格按照《北京工商大学研究生学术道德规范》《北京工商大学学位论文写作规范》的要求撰写。论文摘要用中文和英文撰写。

（五）留学研究生须完成培养方案的各项要求，课程考试成绩合格，修满所需学分，毕业时中文能力应当至少达到《国际汉语能力标准》三级水平，方可申请学位论文答辩。

（六）学位论文须经过文字重复率检测合格后进入评阅和答辩环节。学位论文评阅、学位论文答辩及 学位授予工作程序参照《北京工商大学博士、硕士学位授予办法》《北京工商大学专业学位硕士研究生学位论文管理办法》办理。

VI. TRAINING COMPONENTS AND REQUIREMENTS FOR THE DISSERTATION

In the process of cultivating foreign graduate students, relevant dissertation work includes thesis proposal defense, mid-term examination, paper repetition rate detection, anonymous review, and thesis defense. For specific requirements, please refer to “ Rules of Granting Doctoral and Master ’s Degrees for International Graduate Students of Beijing Technology and Business University ” (《北京工商大学来华留学生研究生博士、硕士学位授予工作细则》).

1. The thesis of a professional master’s degree should be completed independently under the guidance of a supervisor. The thesis should adhere to the principle of integrating theory with practice, focusing on solving practical problems. The thesis can be carried out in multiple forms, such as academic thesis, research report, case study, professional works and so on.The dissertation topic is required to determined by the end of the second semester.

2. Thesis proposal defense shall be arranged in the end of the second semester or in the beginning of the third semester. The Mid-term examination of the dissertation shall be conducted before the end of the third semester. For specific requirements, students can refer to “Working rules for Master's Dissertations of Beijing Technology and Business University” (《北京工商大学专业学位硕士研究生学位论文管理办法》).

3. The dissertation should be completed by he student independently under the guidance of the supervisor. The thesis should have a certain amount of workload. The dissertation is required to be with reliable information and data, correct theory, clear thinking, new insight on the subject of research, and shows that the author of the paper has the ability to comprehensively use basic theory and expertise to solve

practical problems.

4. The dissertation is required to be written in strict accordance with the requirements of “BTBU Graduate Academic Code of Ethics” (《北京工商大学研究生学术道德规范》) and “BTBU Dissertation Writing Code” (《北京工商大学学位论文写作规范》). The abstract is written in both Chinese and English.

5. Before the application for dissertation defense, overseas graduate students must complete the requirements of the training program, pass the course exams and obtain all the required credits. Meanwhile, Their Chinese proficiency should reach at least the level 3 of the International Standard for Chinese Proficiency.

6. The dissertation is allowed to go to the review and defense process only after passing the plagiarism check. The procedures of dissertation review, dissertation defense and degree conferment shall be handled in accordance with “Working Rules for Awarding Doctor’s and Master’s Degrees of Beijing Technology and Business University” and “Working Rules of Dissertation for Professional Master’s Degrees of Beijing Technology and Business University”.

七、教学大纲

课程教学大纲内容包括课程编码、课程名称、学时、学分、教学目标、教学方式、考核方式、适用学科、先修课程、主要教学内容和学时分配、参考文献等。

VII. PROGRAM SYLLABUS

Content of the course syllabus includes course code, course name, course hours, credits, teaching objectives, teaching methods, assessments methods, grading, applicable disciplines or professionaldegrees (fields), prerequisites courses, main teaching content and course hours allocation, references, etc.

八、授课语言

英文

VIII. LANGUAGE OF INSTRUCTION

English.