北京工商大学
留学研究生培养方案
（2024 年）

研究生院

2024 年 9 月

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留学研究生培养方案总体框架要求及模板(2024 版)

一、培养目标

来华留学生在学科/专业学位上的培养目标和毕业要求与所在学校和专业的中国学生一致，符合相应教育层次、专业的教育教学标准或相关规范。来华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，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、学科简介与研究方向

参照国内生培养方案。

三、学制和学习年限

参照国内生培养方案。

四、课程设置与学分要求

来华留学生的课程设置，汉语和中国概况应作为必修课；要加强中文能力的训练。根据教育部《来华留学生高等教育质量规范》（教外〔2018〕50 号）文件要求“（1）以中文为专业教学语言的学科、专业中，来华留学生应当能够顺利使用中文完成本学科、专业的学习和研究任务，并具备使用中文从事本专业相关工作的能力；毕业时中文能力应当达到《国际汉语能力标准》五级水平。（2）以外语为专业教学语言的学科、专业中，来华留学生应当能够顺利使用相应外语完成本学科、专业的学习和研究任务，并具备使用相应外语从事本专业相关工作的能力；毕业时，硕士研究生、博士研究生的中文能力应当至少达到《国际汉语能力标准》三级水平。”

根据学校要求，研究生汉语课程实行年级教学。（1）选择英文授课方式的专业：研究生一年级学生每学期授课学时为 64 学时，4 学分；研究生二年级学生每学期授课学时为 64 学时，4 学分。若学生已通过汉语水平考试，可申请免修相应等级的汉语课程。

表 1 留学研究生课程设置及学分要求（英文授课方式）

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	I010102	中国概况	2	32	1	必修
	I070111	汉语（一级）	4	64	1	必修
	I070112	汉语（二级）	4	64	2	必修
	I070113	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课		参见国内生培养方案制定				必修
						必修
	应修					
专业课		参见国内生培养方案制定				必修/选修

						必修/选修
	应修					
选修课		参见国内生培养方案制定				必选/选修
						必选/选修
	应修					
课程总学分要求			≥14 学分			

说明：具体要求参照同学历层次国内生相应要求。

（2）选择中文授课方式的专业：研究生一年级学生每学期授课学时为 32 学时，2 学分；研究生二年级学生每学期授课学时为 32 学时，2 学分。若学生已通过汉语水平考试，可申请免修相应等级的汉语课程。

表 2 留学研究生课程设置及学分要求（中文授课方式）

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	I010102	中国概况	2	32	1	必修
	I070107	汉语（四级）上	2	32	1	必修
	I070108	汉语（四级）下	2	32	2	必修
	I070109	汉语（五级）上	2	32	3	必修
	I070110	汉语（五级）下	2	32	4	必修
	应修		10 学分			
基础课		参见国内生培养方案制定				必修
						必修
	应修					
专业课		参见国内生培养方案制定				必修/选修
						必修/选修
	应修					
选修课		参见国内生培养方案制定				必选/选修
						必选/选修
	应修					

课程总学分要求	≥10 学分

五、授课语言

中文或英文

六、必修环节（2 学分）

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。

七、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》。

八、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、适用学科或专业学位（领域）、先修课程、主要教学内容和学时分配、参考文献等。

经管学部

经济学院

应用经济学博士留学研究生培养方案

授予学位类别：经济学博士学位

一级学科代码及名称：0202 应用经济学

制订单位：经济学院

一、培养目标

培养适应世界经济发展需要，具备坚实宽厚的经济学理论基础和系统深入的专业知识，掌握现代经济学前沿理论和研究方法，熟悉本学科国际前沿和发展动态，具有独立从事高校教学、科学研究、相关领域的组织管理、高端咨询和社会服务能力的专业人才。来华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，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、学科简介与研究方向

（一）学科简介

北京工商大学应用经济学学科已有 50 余年历史，其前身是原北京商学院商业经济专业，自 1960 年开始招收本科生，1981 年成为全国首批硕士学位授权单位，1997 年被确定为原国内贸易部重点学科，2002 年产业经济学获批北京市重点建设学科，2005 年应用经济学成为北京市重点建设学科，2006 年应用经济学获批一级学科硕士点，2018 年应用经济学获批博士学位授权点。2019 年获批北京市高精尖学科和应用经济学博士后工作流动站。

（二）研究方向

1.产业经济学

本学科方向主要研究流通产业发展、产业组织理论与政策。重点针对农产品流通体系，“互联网+”背景下的流通模式调整与产业变迁、产业竞争与规制、区域产业协同发展等进行研究。

具体研究方向为：（1）流通产业发展；（2）产业组织理论与政策；

2.金融学

本学科方向主要研究区域产业金融支持、区域普惠金融发展。重点围绕产业结构调整、环境治理、区域协同和包容性发展等重大战略对金融资源配置的要求，开展县域产业金融支持、普惠金融、绿色金融和数字金融等方面研究。

具体研究方向为：（1）区域产业金融支持；（2）区域普惠金融发展

3.经济统计学

本学科方向主要研究商业量化分析，价格指数编制的理论、方法与应用，服务业发展政策的有效性和协同性。重点围绕商品市场价格波动与景气检测和预警，大宗商品定价机制及

期货价格指数编制，房地产价格指数，服务业发展政策颁布部门的协同性，政策措施协同性和协同的有效性，政策目标的有效性等方面研究。

具体研究方向为：（1）商业量化研究与景气波动分析；（2）服务业发展政策的有效性系统性展开研究

4.国际贸易学

本学科方向以国际贸易相关理论与政策为研究基础，侧重开展国际经济合作、国际贸易壁垒等方面的研究。重点研究领域包括亚洲区域经济合作、国际贸易绿色与蓝色壁垒、国际投资规制与风险、国际贸易汇率风险、国际贸易中的碳泄漏问题等。

具体研究方向为：（1）区域经济合作；（2）国际贸易壁垒

5.国民经济学

本学科方向主要研究国民经济理论与政策，同时，依托我校经济学、食品与生物化工研究积淀及学科融合的独特优势，重点关注大健康产业（食品、化妆品）的发展及其相关经济增长问题。

具体研究方向为：（1）宏观经济理论与政策；（2）产业发展与经济增长；（3）数字经济。

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。直博生学制 5 年，最长修业年限 7 年。

四、课程设置与学分要求

根据教育部《来华留学生高等教育质量规范》（教外〔2018〕50 号）文件要求“以外语为专业教学语言的学科、专业中，来华留学生应当能够顺利使用相应外语完成本学科、专业的学习和研究任务，并具备使用相应外语从事本专业相关工作的能力；毕业时，硕士研究生、博士研究生的中文能力应当至少达到《国际汉语能力标准》三级水平。”若学生已通过汉语水平考试，可申请免修相应等级的汉语课程。

课程类别	学分要求	课程类别	学分要求
公共课	14	基础课	9
专业课	≥4	选修课	≥4
必修环节	2	总学分	≥33

表 1 留学研究生课程设置及学分要求（英文授课方式）

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	I010102	中国概况	2	32	1	必修
	I070111	汉语（一级）	4	64	1	必修

	I070112	汉语（二级）	4	64	2	必修
	I070113	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	DI010103	高级微观经济学	3	48	1	必修
	DI010104	高级宏观经济学	3	48	2	必修
	DI010105	高级计量经济学	3	48	1	必修
	应修		9 学分			
专业课	DI010117	应用经济学文献研读（全英）	2	32	3	必修
	DI010110	现代金融学	2	32	2	四选一
	DI010111	宏观经济统计研究	2	32	2	
	DI010112	高级国际经济学	2	32	2	
	DI010101	国民经济管理专题	2	32	1	
	应修		≥4 学分			
选修课	DI010107	产业经济学研究方向专题	2	32	2	五选二
	DI010113	金融学研究方向专题	2	32	1	
	DI010115	国际贸易学前沿研究专题	2	32	1	
	DI010116	定量分析方法及应用	2	32	2	
	DI010118	数字经济专题	2	32	2	
	应修		≥4 学分			
补修课		导师制定	/	32	2	
		导师制定	/	32	2	
课程总学分要求			≥31 学分			

说明：

1. 跨专业录取的研究生须在导师指导下补修相应学科硕士阶段主干课程，须参加课程考试且成绩合格，不计学分。

2. 学科综合考核：博士研究生第三学期课程学习结束，达到课程总学分要求后，应参加学院组织的学科综合考核。学科综合考试主要考查形式为预开题。考核成绩合格，方可申请博士研究生学位论文开题；逾期未考者，按不合格处理。

3. 考核方式：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。博士研究生课程考核分为考试和考查两种方式，必修课程一律闭卷考试，选修课程可采用考试或考查方式。博士研究生课程考核成绩按百分制评定，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。

4. 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。

5. 博士研究生在修满规定课程学分后方可进行论文开题。

五、授课语言

英文

六、必修环节（2 学分）

1.学术活动（1 学分）

分为文献综述报告（0.5 学分）与前沿讲座和博士论坛（0.5 学分）两个部分。

（1）文献综述报告（0.5 学分）

学院在第四学期统一组织开题答辩，博士研究生除了提交开题报告外，还必须单独提交一份针对论文选题领域的文献综述报告（不少于 1 万字）。开题答辩委员会成员应具备博士生导师资格，答辩委员会不得少于 5 人，其中至少一名校外专家，导师及博士生指导小组成员需要回避。每位博士生有两次开题答辩的机会，对于两次都不能通过的，原则上做退学处理。开题答辩通过后，可获得 0.5 学分。

（2）前沿讲座和博士论坛（0.5 学分）

第七学期结束前，博士研究生须参加 10 次及以上课题组或学院组织的学术研讨会，在学术研讨会上做至少 4 次报告，由学院审核通过后可获得 0.5 学分。

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。专业实践包括教学实践、社会实践或社会调查，博士研究生须择其一完成相应专业实践报告，经导师签字审核后提交各专业统一组织评价，考核成绩合格即可获得 1 学分。各专业根据实际情况制定可考核标准。

七、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》。

1.学位论文

学位论文是博士生学术水平的集中体现，应在导师组指导下由博士研究生独立完成，必须是创新性研究成果，并具有较大的学术价值和应用价值。

（1）在校期间发表论文要求

为了进一步提高我校应用经济学博士生培养质量，以高质量成果为导向，实行代表作积分制。博士生选取最多三篇代表作，参与积分统计，**上述论文必须以北京工商大学为第一单位署名发表。**

2024 级（含）以后博士生，**代表作总积分≥150** 分可达到发表论文要求，但论文见刊前

期刊被列入中科院预警期刊的（或2021年1月1日后曾进入过中科院预警期刊）不能列入代表作。

注：2022级、2023级博士生满足原培养方案办法和新办法之一，均可视为满足发表论文要求。特殊情况的，提交应用经济学博士点学位评定分委会评议决定。

积分规则如下：

人文社科类科研成果分级表与在校期间发表论文积分对照表

期刊	**论文级别**	积分
A1	American Economic Review, Econometrica, Journal of Political Economy, Quarterly Journal of Economics, Review of Economic Studies	1000
	UTD 24	500
	详见目录（中文、英文），英文期刊为 ABS 3 及 3 以上期刊、或中科院 1 区期刊	300
A2	详见目录（中文、英文），英文期刊同时在 ESI 和 ABS 目录、或英文期刊为中科院 2 区期刊（除 A1 类期刊以外）	200
A3	英文期刊：SSCI、A&HCI 收录期刊、或中科院 3 区期刊（除 A1、 A2 类期刊以外）中文期刊：详见目录	150
B	中文社会科学引文索引 CSSCI 期刊（不含扩展版）	100
C	中文社会科学引文索引 CSSCI 集刊，新华文摘论点摘编，人大报刊复印资料全文转载，三报一刊（非理论版）文章（新闻消息除外）	40
D	北京大学《中文核心期刊要目总览》，中文社会科学引文索引 CSSCI 期刊扩展版	30

注：论文级别参考《北京工商大学人文社科类科研业绩认定办法》（北工商校发〔2024〕8 号）。

为鼓励合作，允许2名同学使用一篇论文作为代表作，需按照下表进行分数分配，示例如下：

分值分配表

学生作者人数	学生作者排序	权重	备注
1 名	一作	100%	
	学生通讯	100%	可与外校合作
2 名 （学生 A+学生 B）	A：一作 B：二作	A：70% B：30%	无学生通讯作者
	A：一作+通讯 B：二作	A：90% B：10%	
	A：一作 B：二作+通讯	A：50% B：50%	

注：导师或导师组内一位老师为一作，A 学生二作，B 学生三作，视为 A 学生一作，B 学生二作。当学生数多于 2 名时，只取前 2 名进行认定。

（2）博士学位论文要求

1. 博士学位论文从开题到答辩不少于 1 年；

2. 学位论文必须符合《北京工商大学博士研究生学位论文管理办法》和《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》的要求；

3. 博士学位论文在送外审之前，需要先通过预答辩环节。

4. 博士学位论文的外审评阅人为 5 名，其中，2 名评阅人由学院负责聘请校外的同行专家（须能参加答辩委员会）对论文进行评阅，3 名评阅人由研究生院聘请校外与论文有关学科的教授(或相当职称的专家)进行匿名评审。

2.授予学位

修满规定学分，综合考试合格及以上，毕业论文经指导教师评阅通过，符合毕业的其他条件，准予毕业，并发放毕业证书；符合申请学位条件的，论文的评审和答辩按照、《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》及相关文件的要求执行，通过者可以获得经济学博士学位。

八、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、适用学科或专业学位（领域）、先修课程、主要教学内容和学时分配、参考文献等。

PhD Program in Applied Economics

1.Training Target

Cultivate professional talents who meet the needs of global economic development, have a solid and broad foundation in economic theory and in-depth professional knowledge, master the cutting-edge theories and research methods of modern economics, are familiar with the international cutting-edge and development trends of this discipline, and have the ability to independently engage in university teaching, scientific research, organizational management in related fields, high-end consulting, and social services. International students studying in China should be familiar with Chinese history, geography, society, economy, and other basic knowledge of Chinese national conditions and culture, understand China's political system and foreign policy, understand the mainstream values and public moral concepts of Chinese society, and form a good sense of rule of law and moral consciousness.

2.Overview of the Program

Introduction

The discipline of Applied Economics in Beijing Technology and Business University (BTBU) has a history of more than 50 years, originated from its predecessor discipline of Business Economics in the former Beijing Institute of Commerce (BIC), where the undergraduate students began to be recruited in 1960. It was listed in China’s first batch of authorization units entitled to grant the master’s degree in 1981 and was identified as the key discipline of the former Ministry of Domestic Trade in 1997. The Industrial Economics and Applied Economics were approved as the key discipline in Beijing respectively in 2002 and in 2005. The Applied Economics was approved to be the master’s degree program of first-level discipline in 2006 and entitled to grant the doctor’s degree in 2018. In 2019, the Applied Economics was approved as Beijing advanced discipline and center for post-doctoral studies.

Research Orientation

1. Industrial Economics

The main research fields of Industrial Economics are to do research on circulation industry development, industry organization theory and policy, which focus on circulation system of agricultural products, adjustment of circulation mode and industrial change under the “Internet+” background, industrial competition and regulation, coordinated development of regional industry, etc.

Specific Research Directions:

(1) Circulation Industry Development; (2) Industry Organization Theory and Policy

2. Finance

The main research fields of Finance are financial support of regional industry and regional

development of inclusive finance, which focus on financial resource allocation requirements for major strategies such as industrial restructuring, environmental governance, regional coordination and inclusive development, and the research on carrying out county industrial financial support, inclusive finance, green finance and digital finance.

Specific Research Directions:

(1) Financial Support for Regional Industry; (2) Regional Development of Inclusive Finance

3. Economic Statistics

The main research fields of Economic Statistics are business quantitative analysis, theory, method and application of compiling price index, and effectiveness and synergy of policy for service industry development, which focus on commodity market price volatility and boom monitoring and warning, bulk commodity pricing mechanism and the compilation of futures price index, real estate price index, departmental synergy to promulgate the policy for service industry development, policy and measure synergy and effectiveness of synergy, effectiveness of policy objectives, etc.

Specific Research Directions:

(1) Business Quantitative Research and Boom Fluctuation Analysis; (2) Research on Effective and Systematic Policy for Service Industry Development

4. International Trade

The research field is based on the research on international trade theory and policy, with the key study on international economic cooperation and international trade barriers. The research focuses on regional economic cooperation, green barriers and blue barriers to international trade, regulation and risk control of international investment, exchange rate risk of international trade, carbon leakage in international trade, etc.

Specific Research Directions:

(1) Regional Economic Cooperation; (2) International Trade Barriers

5. National Economics

The main research field of National Economics is the research on the theory and policy of national economy. Relying on the unique advantage of the research accumulation and discipline integration of economics, food science and bio-chemistry in BTBU, the research focuses on the development of massive health industry (eg. food and cosmetics) and the related economic growth.

Specific Research Directions:

(1) Macroeconomic Theory and Policy; (2) Industrial Development and Economic Growth; (3) Digital Economics.

3. Length of Schooling

The duration is generally 4 years, which should not be longer than 6 years (including suspension).

4. Curriculum and Credits Requirements

According to the requirements listed in "Quality Standards for Higher Education for International Students in China" issued by the Ministry of Education's, in disciplines and majors that use foreign languages as their teaching language, international students studying in China should be able to successfully use the corresponding foreign languages to complete their learning and research tasks, and have the ability to use the corresponding foreign languages to engage in related work in their respective majors. In order to graduate, the Chinese language proficiency of master's and doctoral students should at least reach the HSK Level 3. If students have passed the HSK exam, they can apply for exemption from the corresponding level of Chinese language courses.

Course Classification	Credits Requirement	Course Classification	Credits Requirement
Public Course	14	Basic Courses	9
Discipline Core Course	⩾4	Major Optional Course	⩾4
Practice Part	2	Total Credits	⩾33

Table 1 Curriculum and Credit Requirements for International Graduate Students (English Teaching Method)

CourseClassification	Course Code	Course Name	Credits	Course Hours	Semester	Compulsory/ Optional
PublicCourse	I010102	Chinese Culture	2	32	1	Compulsory
	I070111	HSK（Level Ⅰ）	4	96	1	Compulsory
	I070112	HSK（Level Ⅱ）	4	96	2	Compulsory
	I070113	HSK（Level Ⅲ）	4	64	3	Compulsory
	Credits Requirement		14 Credits			
Basic Courses	DI010103	Advanced Microeconomics	3	48	1	Compulsory
	DI010104	Advanced Macroeconomics	3	48	2	Compulsory
	DI010105	Advanced Econometrics	3	48	1	Compulsory
	Credits Requirement		9 Credits			

Discipline Core Course	DI010117	Literature Review of Applied Economics	2	32	3	Compulsory
	DI010110	Modern Finance	2	32	2	Optional （select at least 1 course among 4）
	DI010111	Statistical Analysis of Macroeconomy	2	32	2	
	DI010112	Advanced International Economics	2	32	2	
	DI010101	National Economic Management	2	32	1	
	Credits Requirement		⩾4 Credits			
Major Optional Course	DI010107	Special topics on industry economics	2	32	2	Optional （select at least 2 course among 5）
	DI010113	Seminar on Finance Research	2	32	1	
	DI010115	Seminar on International Trade Frontier Research	2	32	1	
	DI010116	Quantitative Analysis Method and Its Application	2	32	2	
	DI010118	Digital Economy Special Series	2	32	2	
	Credits Requirement		⩾4 Credits			
Complementary Course		To be required by supervisor	-	32	2	
		To be required by supervisor	-	32	2	
Total Credits			⩾31 Credits			

Notes:

1. Students whose major is not in economics during their undergraduate or postgraduate studies, should take the complementary courses of the corresponding master courses under the guidance of the supervisor. Students are required to attend and pass the non-credit examination.

2. Discipline Comprehensive Assessment. After Semester 3 upon the completion of all courses and meet the total credit requirements, doctoral students should participate in the Discipline Comprehensive Examination organized by School of Economics. The form of discipline comprehensive examination is mainly dissertation per-defense. PhD candidates can apply for the dissertation defense only after they pass the examination. Absence from the examination will be considered as unqualified.

3. Assessment Methods: All courses and compulsory tasks in the Training Program need to be evaluated, and credits can be obtained only after the students passing the assessment. The assessment of doctoral courses is divided into two types: examinations and inspections. All compulsory courses should be taken through the closed-book examinations, and the elective courses can be taken by either examinations or inspections. The hundred-mark system is applied in final result of doctoral courses, with at least a score of 70 to pass the compulsory courses and 60 to pass the elective courses.

4. There is no make-up exam for compulsory courses and students who fail to pass the examinations should apply for retaking the courses with the next grade. Students who fail to pass the elective course examinations can apply for retaking the course with the next grade or choose other elective courses instead upon consent of their supervisor.

5. Only after completing the required course credits can doctoral candidates attend the Interim Dissertation Defense.

5. Teaching Language

English

6. Practice Part （2 credits）

(1) Academic Activities (1 credit)

It includes Literature Review and Dissertation Proposal (0.5 credit) and academic conferences (0.5 credit).

Literature Review and Dissertation Proposal (0.5 credit)

The Dissertation Proposal Defense will be uniformly organized in Semester 4. Besides Dissertation Proposal Defense, students should submit a Literature Review on the dissertation topic (no less than 10000 words). The proposal defense committee should not be composed of less than 5 experts with the qualification of doctoral supervisor, and one of them should be an off-campus mentor. The supervisor and the tutor group should avoid attending. Each doctoral candidate has two opportunities to present the Dissertation Proposal Defense, two failed will result in being expelled from school by principle. 0.5 credit can be obtained after passing defense.

Academic conferences (0.5 credit)

Before the end of Semester 7, doctoral candidates should participate in at least 10 academic conferences organized by research group or School of Economics, and make at least 4 presentations at the conferences. Upon approval of supervisor, 0.5 credit can be obtained.

(2) Professional practice (1 credit)

The professional practice of international students should meet the professional requirements of each major. In addition, it should combine the career planning with the needs of international talent training. Professional practice includes teaching practice, social practice or social investigation. Doctoral students must choose one of them to complete the corresponding professional practice report, which will be submitted to each discipline leader for unified evaluation after being signed and reviewed by their tutors. Pass the assessment can obtain 1 credit. Each discipline shall formulate assessment standards according to the actual situation.

7. The Dissertation Related Work

The process of training international doctoral candidates includes opening defense, intermediate inspection, scientific research publication review, plagiarism check, anonymous review, and defense. For detailed requirements, please refer to the “Dissertation Norms for Doctoral Students in Beijing Technology and Business University” and “Implementation Rules on Conferring Doctor's and Master's Degrees for International Students in Beijing Technology and Business University (Trial)”

Dissertation

Doctoral dissertation is the concentrated reflection of the training quality and academic level of doctoral students, which should be independently completed by the doctoral candidates under the guidance of their tutor panel. Besides, the dissertation should reveal the innovative academic research result which is of academic or practical values.

1. Requirements for Paper Publication

To further improve the quality of doctoral training in applied economics, we implement a representative work integration system guided by high-quality achievements. Doctoral students can select up to three representative works to participate in integral statistics, and the papers mentioned above must be published under the first affiliation of Beijing University of Technology.

For doctoral students after the 2024 level (inclusive), the total score of representative papers must be ⩾150 points to meet the requirements for publishing papers. However, those whose papers have been included in the Chinese Academy of Sciences Early Warning Journal before publication (or have been included in the Chinese Academy of Sciences（CAS）Early Warning Journal since January 1, 2021) cannot be included in representative papers.

Note: Doctoral students from the 2022 and 2023 levels who meet the requirements of the original training program and one of the new methods can be considered as meeting the requirements for publishing papers. In case of special circumstances, rest assured that the decision

shall be submitted to the Evaluation Committee of the Doctoral Degree in Applied Economics for a fair and thorough evaluation, ensuring your academic journey is just and equitable.

The points rule is as follows:

Classification and Points Table for Published Papers during School Period1

Journals	**Paper level**	Points
A1	American Economic Review, Econometrica, Journal of Political Economy, Quarterly Journal of Economics, Review of Economic Studies	1000
	UTD 24	500
	See the Table of contents (in Chinese and English), the English journals are ABS 3 and above, or CAS Region 1 journals	300
A2	See the catalogue (in Chinese and English), the English journal is in both ESI and ABS catalogue, or the English journal is a Chinese Academy of Sciences Region 2 journal (except A1 journals)	200
A3	English journals: SSCI, A&HCI journals, or CAS Region 3 journals (except A1 and A2 journals) Chinese journals: See the Table of contents	150
B	Chinese Social Sciences Citation Index CSSCI Journal (without extended edition)	100
C	CSSCI Collection of Chinese Social Science Citation Index, Xinhua Abstracts of arguments, reprinted full text of copies of newspapers and periodicals of Renmin University of China, articles in three newspapers and one journal (non-theoretical edition) (except news)	40
D	Chinese Social Sciences Citation Index, Overview of Chinese Core Journals, Peking University CSSCI Journal Extended Edition	30

Note: Paper level refer to "Beijing Technology and Business University Humanities and Social Science research Performance Recognition Measures" (Beijing Business School (2024) No.

8)

To encourage cooperation, two students can use one paper as their representative work, and the points should be allocated according to the following table, as shown in the following example:

Points distribution table2

Number of Student Authors	Student Author ranking	Weights	Remarks
1	first author	100%	
	Student Corresponding Author	100%	Can work with an outside school
2 (Student A+ Student B)	A: first author B: second author	A: 70% B: 30%	No student corresponding author
	A: First author + corresponding author B: second author	A: 90% B: 10%	
	A: first author B: second author + Corresponding Author	A: 50% B: 50%	

Remarks: If the supervisor or one teacher in the supervisor's group is the first author, student A is the second author, and student B is the third author, it is regarded as student A's first author and student B's second author. The first two will be recognized when there are more than two students.

2. Requirements for Dissertation.

(1) The dissertation process shall take a time span of at least 1 year from Dissertation Proposal Defense to Dissertation Defense.

(2) The dissertation must meet the requirements of “Dissertation Norms for Doctoral Students in Beijing Technology and Business University” and “Implementation Rules on Conferring Doctor's and Master's Degrees for International Students in Beijing Technology and Business University (Trial)”.

(3) The blind review can be carried out after the student passes the Pre-defense of dissertation.

(4) The dissertation should be blind reviewed by 5 experts, including 2 external experts (required to attend the defense academic committee) invited by School of Economics and 3

discipline-related external professors (or equivalent experts) invited by Graduate School.

Degrees Conferment

The students who have completed the required academic credits, passed the Discipline Comprehensive Examination, obtained the approval of the supervisor for the dissertation and met the other requirements for graduation are allowed to graduate and obtain a diploma. According to the “Implementation Rules on Conferring Doctor's and Master's Degrees for International Students in Beijing Technology and Business University (Trial)” and the related documents, those who meet the requirements for degree application will obtain a doctor’s degree in Economics after passing the blind review and dissertation defense.

8. Course Syllabus

The content of the course syllabus includes the course code, course name, class hours, credits, teaching objectives, teaching methods, assessment methods, applicable disciplines or professional degree (fields), prerequisite courses, main teaching contents and class hour allocation, references, etc.

理论经济学硕士留学研究生培养方案

授予学位类别：经济学

一级学科代码及名称：0201 理论经济学

制订单位：经济学院

一、培养目标

理论经济学专业坚持立德树人的根本任务，培养掌握理论经济学基础理论和系统的专门知识，具有独立从事西方经济学、政治经济学、世界经济以及人口、资源与环境经济学各专业领域不同岗位实际工作的能力，具有较高的综合素质、创新和创业精神，适应社会需求的高级专门人才。

1. 留学研究生应掌握本学科坚实的基础理论和系统的专门知识，熟悉有关经济学的演变历史、前沿和发展趋势，熟练掌握现代经济学研究方法和分析技术，了解社会主义经济体制改革和社会主义经济建设的实践，能够熟练运用经济学专业知识和分析技术独立研究和解决经济问题。

各方向研究生应熟练掌握马克思主义政治经济学和当代西方经济学理论。其中，世界经济学方向研究生应掌握世界经济学等分支经济学的相关理论，人口、资源与环境经济学方向研究生应掌握人口、资源与环境经济学等分支经济学的相关理论和政策。

2. 身心健康，具有能够承担本学科范围内各项专业工作的良好体魄。

3. 熟练地掌握和使用汉语，能够阅读和理解本专业的中文资料，同时，具备一定的英语交流能力。了解理论经济学国内外发展动态，具备持续学习、修读博士学位所需的知识背景。

4. 留学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。

二、学科简介与研究方向

（一）学科简介

我校理论经济学学科始建于 1960 年，是我校设立最早的学科之一。学科于 2001 年获得西方经济学硕士点；2005 年获得政治经济学硕士点；2010 年理论经济学获得一级学科硕士学位授予权。

北京工商大学理论经济学一级学科有相当丰富的教学科研资源，学科领域几乎涵盖了经济学基础理论的全部内容，为基础经济学理论的研究提供了扎实的基础。目前本校理论经济学学科已在现有特色学科基础上，构建了具有坚实实践基础和完备理论支撑的学科体系，主

要在以下四个二级学科招生，分别为西方经济学、政治经济学、世界经济以及人口、资源与环境经济学。

我校理论经济学学科师资力量雄厚，现有指导教师 29 人，其中教授 6 人，副教授 15 人，博士生导师 4 人，海归博士 2 人，多名教师具有海外留学或进修经历（哈佛大学、斯坦福大学、康奈尔大学、美国加州大学圣地亚哥分校、日本九州大学、爱尔兰考克大学等国外知名高校）。

本学科在梁小民教授、王相钦教授、王福成教授、廖运凤教授、徐丹丹教授、倪国华教授为代表的一批知名学者的带领下，经过多年发展，已取得了不菲成绩。近年来，团队教师在《经济研究》、《经济学（季刊）》、《数量经济技术经济研究》、《农业经济问题》等刊物发表论文 400 余篇，出版专著和教材 50 余部，参著、译著 30 余部，主持或参与国家级、省部级和企业委托课题 50 余项，省部级以上科研成果获奖 2 项，省部级以上教育教学成果获奖 1 项。

至今，理论经济学学科已经累计招收研究生百余人，其中在校生 40 余人，已获得经济学硕士学位的研究生 80 余人，毕业生中，部分研究生考取中国人民大学、南开大学、对外经济贸易大学、中国社科院等院校和研究机构的博士研究生，已就业学生多在商务部、国资委、北京市国税局、中国银行、中国工商银行、中国保险保障基金有限责任公司、中国人寿保险（集团）公司、北京金融产权交易所、国海证券、五矿集团、经济科学出版社等政府、企业和金融机构工作。

（二）研究方向

1. 西方经济学

1）微观经济理论与政策

研究内容主要包括：各种价格理论；大宗商品价格的影响因素与变化趋势；垄断企业的定价问题及相应的价格管制；一般企业的定价策略与定价行为；运用博弈、信息与激励等微观经济理论，结合微观计量方法，研究人力资本深化和教育公共品供求问题。在研究过程中，注重理论、实践与政策的结合。

2）宏观经济理论与政策

研究内容主要包括：国民经济的宏观运行与结构调整政策研究；食品安全公共治理与包容性财政制度；农业政策的宏观模拟；空间经济学。在研究过程中，注重实证分析方法与规范分析方法的结合。

2. 政治经济学

研究方向为企业理论与企业社会责任。研究内容主要包括：公司治理结构；经济全球化背景下的跨国并购和中国企业海外运营问题；国有企业的资产重组和国有企业分类改革与治理；企业产权制度安排；中国各类企业的社会责任问题。本研究方向重视企业经济学理论的

研究和中国企业制度改革的实践探索。

3. 世界经济

1）区域经济合作与经济全球化

研究内容主要包括：国际区域经济一体化与经济全球化的关系，国际经济合作中的组织形态、发展特征及其对世界经济的影响，着重培养学生了解并掌握国际区域经济一体化的理论与实践，把握其发展趋势，了解中国开展国际区域经济合作的动态及长远战略。

2）国际货币与金融体系

研究内容主要包括：国际货币体系的演变历史、现状和发展前景；汇率制度的制定原则、依据与管理；人民币在国际货币体系中的角色与作用 ；人民币汇率与货币制度的改革；人民币国际化与国际货币体系重构等问题，培养学生掌握相关理论知识，同时培养学生分析、判断及解决问题的能力。

4. 人口、资源与环境经济学

研究方向为人口、资源与环境的协调发展。研究内容主要包括：人口、资源与环境互动的经济学理论；人力资本深化与经济发展的理论与政策；低碳政策的减排效应及其机制设计；低碳导向的能源与产业结构优化；碳泄漏背景下的区域间产业布局与贸易协调；碳交易市场的理论与实践；低碳导向的新能源产业发展及其金融支持。在研究过程中，注重理论与政策实践结合、规范分析与实证分析并重。

三、学制和学习年限

留学研究生学制 3 年，最长修业年限 5 年。

四、课程设置与学分要求

1.课程设置

理论经济学专业硕士研究生所修课程分必修课和选修课，总学分不得少于 41 学分。学分组成为：必修课程共计 31 学分，其中公共基础课程不少于 10 学分，学科基础课程 11 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，至少应选修 1 门跨学科选修课。

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 2 学分。

2. 补修课程

同等学力和跨专业录取的研究生须在导师指导下补修相应专业本科主干课程 3 门，参加课程考试并考核合格，不计学分。

3. 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、课堂讨论等方式确定。

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。

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	10	基础课	11
专业课	10	选修课	≥8
必修环节	2	总学分	≥41

表 2 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	I010102	中国概况	2	32	1	必修
	I070107	汉语（四级）上	2	32	1	必修
	I070108	汉语（四级）下	2	32	2	必修
	I070109	汉语（五级）上	2	32	3	必修
	I070110	汉语（五级）下	2	32	4	必修
	应修		10 学分			
基础课	A010102	中级微观经济学	3	48	1	必修
	A010103	中级宏观经济学	3	48	2	必修
	A010104	中级计量经济学	3	48	1	必修
	A010609	中级政治经济学	2	32	2	必修
	应修		11 学分			
专业课	A010601	经济学说史	2	32	1	必修
	A010602	宏观经济理论与政策专题	2	32	2	必修
	A010603	博弈论与信息经济学专题	2	32	2	必修

	A010117	应用经济学前沿讲座	2	32	1	必修
	A010608	经济英语	2	32	2	必修
	应修		10 学分			
选修课	A010610	经济学前沿问题研讨与论文写作	2	32	1	必选
	A010503	应用多元统计分析	2	32	2	选修
	A010606	产业组织理论	2	32	2	选修
	A010415	计量软件应用	2	32	2	选修
	A010217	城市经济学前沿	2	32	2	选修
	A010410	世界经济专题	2	32	1	选修
	A010303	金融经济学	2	32	1	选修
	A010201	公共财政理论研究	2	32	1	选修
	A010418	国际贸易理论与政策研究	2	32	2	选修
		可在全校研究生课程范围内选择				跨学科选修课（必选）
	应修		≥8 学分			
补修课		微观经济学				
		宏观经济学				
		统计学				
课程总学分要求			≥39 学分			

五、授课语言

中文。

六、必修环节（2 学分）

1.学术讲座（1 学分）

理论经济学专业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。

2.专业创新实践（1 学分）

理论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。

（1）学术研讨班：由导师指导、学生自主组织与管理、定期举行的学术研讨活动，一般可围绕某一研究主题进行文献调研并在本学院或本学科范围内进行论文报告，目的是让学生

了解本学科或相关学科的前沿论题和发展动态。学生须累计参加 10 次以上学术研讨班，参加其他大学学术研讨班的，也予以认可，但需经导师同意，并提供有关证据。

（2）科学研究：在导师指导下，学生参与导师的科学研究，累计工作时间不少于 40 小时。

（3）专业实践：学生到实习单位从事本学科专业领域的实际业务实践，累计实践时间不少于 3 个月，须经导师同意，并提供相关证明和接收单位鉴定。

（4）学科竞赛：学生完整地参加完一项学科竞赛，含全国性、全校性或学院主办的学科或专业竞赛，或者完成学校或学院组织的研究生科技立项一项，并提供相应竞赛或研究成果。

（5）社会服务：组织学生参加助管、助教及其他志愿者服务活动，累计服务时间不少于 40 小时。

七、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》。

八、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。

Master of Theoretical Economics Program

I. Training Target

The training target is to equip students with basic theories and professional knowledge, thus to have practical ability to engage in western economics, political economics, world economics and economics of population, resource and environment individually in various professional areas. And also equip students as senior specialized professionals with higher comprehensive qualities, innovation and entrepreneurial spirit to meet social needs and contribute to the development of national economy.

1. Postgraduates should master the solid basic theory and systematic expertise of the program, be familiar with the evolution history, frontier and development trend of economics, master the research methods and analysis techniques of modern economics, understand the practice of socialist economic system reform and socialist economic construction, be able to apply economic expertise and analytical skill in studying and solving economic problems individually. And with the ability to engage in business management, undertake specialized technical work, higher comprehensive quality, innovation and entrepreneurial spirit.

Postgraduates from all directions should be proficient in western economics theory and Marx's theory of political economics. Those who majored in world economics should master relevant theories of its branches. Those who majored in population, resource and environment economics should master relevant theories and policies of its branches.

2. Postgraduates should be physical and mental health, and have the ability to undertake professional works within your own programs with good physique.

3. Postgraduates should have a better command and use of a foreign language, the ability to read and understand foreign materials of your own program, the skill of foreign communication.And understand the development of Applied Economics at home and abroad, with the knowledge background for continuous study and doctoral degree.

Ⅱ. Overview of the Program

1. Program Introduction

Program of Theoretical Economics was established in 1960, one of the earliest programs of BTBU. It was granted to launch master of Western Economics, Political Economics and Theoretical Economics sections in 2001, 2005 and 2010, respectively.

Program of Theoretical Economics has abundant resources in teaching and researching, and covers almost all the contents of Economics basic theories, which would lay solid foundation for basic Economics theories research. Based on characteristic program, it formed practical and theory back-up system. There are four sub-disciplines recruiting master students, including **Western Economics, Political economics, World Economics, and Population, Resource and Environment Economics.**

At present, there are 29 professional teachers in this major, including 6 professors, 15

associate professors, 4 doctoral student supervisors, 2 overseas returnees doctors many teachers have overseas studying or visiting experiences. (Harvard University, Stanford University, Cornell University, University of California, San Diego, Kyushu University and University College Cork)

With the guidance of famous scholars like Liang Xiaomin, Wang Xiangqin, Wang Fucheng, Liao Yunfeng, Xu Dandan and Ni Guohua, and with years of development, this program has accumulated tremendous achievements. Over 400 papers were published in Economic Research Journal, China Economic Quartly, The Journal of Quantitative & Technical Economics, Issues in Agricultural Economy. Over 50 monographs and textbooks were issued. Over 30 publications were jointly compiled or translated. Over 50 national, provincial and enterprises projects, were hosted or participated. 2 provincial and above research awards were granted. 1 provincial and above education and teaching awards was granted.

Nowadays, we have accumulatively enrolled hundreds of master students majoring in Theoretical Economics, among which, over 40 students are at school, over 80 have got degrees. Some of the graduated master students went to further education to Renmin University, Nankai University, University of International Business and Economics, Chinese Academy of Social Sciences, et al. The others found jobs in many government departments and famous companies.

2. Research Areas

a. Western Economics

i. Microeconomics theory and policy

Research mainly contains various price theories, influencing factors and developing trends of commodity prices, pricing problems of monopoly enterprises and corresponding price regulation, pricing strategies andbehavior of general enterprises, Research also needs to use game, information and incentive microeconomics theories, combined with micro-econometric methods, to study the deepen of human capital and the supply and demand problems of educational public goods. In the process of research, it’s required to focus on the combination of theory, practice and policy.

ii.Inclusive macroeconomics theory and policy

Research mainly contains the national economic policy study of macro development and structure adjustment, pubic governance of food safety and inclusive financial institution, macro-simulation of agricultural policy, spatial economics. In the process of research, it’s required to emphasize the combination of empirical analysis method and normative analysis method.

b. Political Economics

Corporate theory and corporate social responsibility

Research mainly contains the governance of corporation, transnational mergers and acquisitions in the context of economic globalization and the overseas operation of Chinese enterprises, the reorganization of state-owned enterprises and the classified reform and governance of state-owned enterprises, the institutional arrangement of enterprise property rights, the social responsibility of all kinds of Chinese enterprises. This research area focuses on

the enterprise economics theories and the practical exploration of Chinese enterprise institutional reform.

c. World Economics

i. Regional economic cooperation and economic globalization

Research mainly contains the relationship between international regional economic integration and economic globalization, the organizational form and development characteristics of international economic cooperation, and its impact on the world economics. This research area focuses on cultivating students to understand and master the theory and practice of international regional economic integration, grasp its development trend and understand the dynamics of Chinese international regional economic cooperation and long-term strategy.

ii. International monetary and financial system

Research mainly contains the evolution history, current situation and development prospect of international monetary system, the formulation principle, basis and management of exchange rate institution, the role and function of RMB in international monetary system, the reform of RMB exchange rate and monetary institution, internationalization of RMB and the reconstruction of the international monetary system and so on. This research area focuses on cultivating students to master relevant theory and with the ability to analyze, judge and solve problem.

d. Population, Resource and Environment Economics

Coordinated development of population, resources and environment

Research mainly contains the interactive economic theory of population, resource and environment, the theory and policy of human capital deepening and economic development, emission reduction effect and mechanism design of low-carbon policy, optimization of low-carbon oriented energy and industrial structure, regional industrial layout and trade coordination under the background of carbon leakage, theory and practice of carbon trading market, carbon oriented development of new energy industry and its financial support. It's required to focus on the combination of theoretical mechanism and policy practice, normative analysis and empirical analysis during the research process.

Ⅲ. Length of Schooling

Educational period lasts 3 years and shall not be lasted for 5 years at most.

Ⅳ. Curriculum and Credits Requirements

1. Curriculum setting

The postgraduate courses of theoretical economics are divided into compulsory courses and elective courses, and the total credits shall not be less than 41 credits. The composition of credits is: 31 credits for compulsory courses, including 10 credits for public basic courses, 11 credits for subject basic courses and 10 credits for professional courses. The elective courses listed in the teaching plan selected under the guidance of the tutor shall not be less than 8 credits, and at least one interdisciplinary elective course shall be selected.

On the basis of completing the above credits, graduate students can also take postgraduate

courses offered by other colleges under the guidance of their tutors.

At the same time of completing the course, you need to obtain 2 credits for compulsory links.

2.Supplementarycourses

Postgraduates with the same educational background or those who have been admitted from other programs should take up relevant undergraduate backbone courses under the guidance of their tutors and pass the examination. Those courses are non-credit.

3. Curriculum assessment

All courses and compulsory parts in the training program should be examined and the credits can be obtained by passing examination. Postgraduate course assessment is divided into examination and test. Degree courses are all closed-book examination, whereas non-degree courses can be passed by examination or test.

The aggregate score is 100 and the bottom line to pass is 60. The score is made of usual grades and final examination grades, and the usual grades account for 30%-50%. The usual grades must include course paper and also can be measured by usual test, reading report, assignment, discussion, etc. The usual grades of social science must include the score of short paper.

Those who haven't pass the compulsory course examination will not be allowed to take examination again but to retake the course with the next grade. Those who haven't pass the elective course examination are allowed to retake the course or change the course with the permission of the tutor.

The score can be obtained by taking the course or passing the examination again, or the students will not be allowed to take part in the thesis defense.Postgraduates must take part in the mid-term assessment after obtaining the required course credits. Only passing this assessment, students can take part in the process of evaluating their thesisqualification.

Table 1 Curriculum categories and structure

Course Classification	Credit Requirements	Categories	Credit Requirements
Public course	10	Basic course	11
Discipline course	10	Major Optional course	≥8
Compulsory course	2	**Total credits**	≥41

Table 2 Curriculum and Credits Requirements

Course Classification	Course Code	Course Name	Credits	Course Hours	Semester	Compulsory/ Optional
Public course	I010102	Chinese Culture	2	32	1	Compulsory
	I070107	HSK（Level Ⅳ）A	2	32	1	Compulsory
	I070108	HSK（Level Ⅳ）B	2	32	2	Compulsory
	I070109	HSK（Level Ⅴ）A	2	32	3	Compulsory

	I070110	HSK（Level Ⅴ）B	2	32	4	Compulsory
	Credits Requirement		10 Credits			
Basic course	A010102	Intermediate microeconomics	3	48	1	Compulsory
	A010103	Intermediate macroeconomics	3	48	2	Compulsory
	A010104	Intermediateeconometrics	3	48	3	Compulsory
	A010609	Intermediate political economics	2	32	2	Compulsory
	Credits Requirement		11 Credits			
Discipline courses	A010601	History of economics theory	2	32	1	Compulsory
	A010602	Special topic of macroeconomics theory and policy	2	32	2	Compulsory
	A010603	Special topic of game theory and information economics	2	32	2	Compulsory
	A010117	Applied economics frontier course of lectures	2	32	3	Compulsory
	A010608	Economics English	2	32	2	Compulsory
	Credits Requirement		10 Credits			
Major Optional course	A010610	Economics frontier research and thesis writing	2	32	1	Compulsory
	A010503	Applied Multivariate Statistical Analysis	2	32	2	Optional
	A010606	Industrial Organization Theory	2	32	2	Optional
	A010415	Econometrics Software Application	2	32	2	Optional
	A010217	Frontier of Urban Economics	2	32	2	Optional
	A010410	Special topic of world economics	2	32	1	Optional
	A010303	Financial Economics	2	32	1	Optional
	A010201	Research on the theory of public finance	2	32	1	Optional
	A010418	Study on International Theory and Policy	2	32	2	Optional
		Can be selected within the scope of postgraduate courses of the whole school				Interdisciplinary elective course (Compulsory)
	Credits Requirement		≥8 Credits			

relevant undergraduate backbone courses	Microeconomics			
	Macroeconomics			
	statistics			
TotalCredits		≥39 Credits		

V. Teaching Language

Chinese

VI. Practice Part（2 credits）

1. Academic Lectures (1 credit)

Overseas graduate students must attend at least 5 special lectures, academic reports or graduate forums organized or approved by the graduate School, school or discipline.

2. Professional Innovation Practice (1 credit)

The professional innovation practice of overseas graduate students includes academic seminar, scientific research, professional practice, discipline competition, social service and other activities, and at least 3 of the 5 activities should be selected to complete according to the requirements.

1) Academic seminar: regular academic seminar activities organized and managed by students under the guidance of supervisors. Generally, students can conduct literature research on a research topic and report papers in the school or within the scope of the discipline. The purpose is to let students know the cutting-edge topics and development trends of the discipline or related disciplines. Students must participate in more than 10 academic seminars in total. Those who participate in academic seminars of other universities are also recognized, but they need the consent of the tutor and provide relevant evidence.

2) Scientific research: Under the guidance of the supervisor, students will participate in the scientific research of the supervisor, and the accumulated working time is not less than 40 hours.

3) Professional practice: Students shall engage in practical business practice in the field of the discipline in the internship unit for no less than 2 months, and shall obtain the consent of the supervisor, and provide relevant certificates and identification of the receiving unit.

4) Discipline competition: Students can complete a discipline competition, including a national, university-level or college-sponsored discipline or professional competition, or complete a graduate science and technology project organized by the school or college, and provide corresponding competition or research results.

5) Social service: organize students to participate in assistant management, teaching assistant and other volunteer service activities, the accumulated service time is not less than 20 hours.

VII. The Dissertation Related Work

Academic master degree candidates must participate in scientific research and publish academic papers, and the similarity rate of the thesis should be qualified. The master's degree

will beawarded after passing the anonymous review and the oral defense. Specific requirements referred to Doctoral candidates dissertation management methods，BTBU and Doctor and master degree awarded detail rules and regulation. For detailed requirements, please refer to the “Dissertation Norms for Doctoral Students in Beijing Technology and Business University” and “Implementation Rules on Conferring Doctor's and Master's Degrees for International Students in Beijing Technology and Business University (Trial)”.

VIII. Training ProgramSchedule:.

The course syllabus includes course code, course name, class hours, credits, teaching objectives, teaching methods, assessment methods, applicable subjects, prerequisite courses, main teaching contents and class hour distribution, references, etc.

财政学硕士留学研究生培养方案

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：020203 财政学

制订单位：经济学院

一、培养目标

在本学科领域内掌握坚实宽广的基础理论和深入系统的专门知识。跟踪当代中外财政理论前沿，熟悉现代财政制度及其运行规律；具有较强阅读文献、运用经济学方法、信息技术手段、财政实务技能分析问题和解决问题的创新能力，发表高水平论文，具备继续深造和独立从事科学研究的能力。

二、学科简介与研究方向

1．财政理论与政策研究

系统掌握社会分配理论、方法与制度，分析财政税收政策对资源配置的影响，包括宏观、中观与微观各领域配置，有效激励与约束社会经济活动，推动社会经济持续健康发展。具体研究内容主要包括：研究财税对要素价格、收入分配的影响，对宏观经济的影响；研究财税对特定群体、特定产业、特定区域的支持与激励政策，研究财税政策的效果与改善等。注重财税政策对经济影响的计量研究、突出政府支出责任及绩效评价。

2．区域财政问题研究

系统掌握公共资源在区域空间配置的基本理论和政策分析方法。可以为各地区进出口贸易、招商引资、支柱产业选择、要素跨区流动提供财政税收政策分析，为企业跨区域布局提供最优方案。毕业生具备为企业跨区域配置资源、为地方政府招商引资提供咨询的能力。具体研究内容主要包括：财政体制与政府间分工对社会分配的影响，财政收支规模、结构、形式的区域差异、现代预算制度与各地公共支出效率、实证分析财税政策对不同地区产业发展、进出口贸易、要素流动等经济活动的影响。

三、学制和学习年限

财政学专业硕士研究生学制 3 年，最长修业年限 5 年。

四、课程设置与学分要求

1.课程设置

财政学专业硕士研究生所修课程分必修课和选修课，课程总学分不得少于 39 学分。学分组成为：其中课程学习 39 个学分，实践 4 个学分。39 个学分包括必修课 31 个学分和选修课 8 个学分。实践 4 个学分包括，参加导师的研究项目或研讨会 2 个学分，以及综合素养 2 学分。

2.课程考核

所有学生都必须通过学校组织的所有课程考试。通过考试的学生可以获得课程学分。任何完成所有学分要求的学生都可以写论文。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。根据学位申请程序，成功答辩论文的学生有权获得经济学位。

表 1 财政学学术型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	10	基础课	13
专业课	8	选修课	≥8
必修环节	4	总学分	≥43
学分说明	总学分=课程学分+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。		

表 2 财政学学术型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	I010102	中国概况	2	32	1	必修
	I070107	汉语（四级）上	2	32	1	必修
	I070108	汉语（四级）下	2	32	2	必修
	I070109	汉语（五级）上	2	32	3	必修
	I070110	汉语（五级）下	2	32	4	必修
	应修		10 学分			
基础课	A010102	中级微观经济学	3	48	1	必修
	A010103	中级宏观经济学	3	48	2	必修
	A010104	中级计量经济学	3	48	1	必修
	A010609	中级政治经济学	2	32	2	必修
	A010204	专业英语（财政外文文献精读）	2	32	2	必修
	应修		13 学分			
专业课	A010201	公共财政理论研究	2	32	1	必修
	A010202	税收理论与政策	2	32	1	必修
	A010203	政府预算与绩效管理	2	32	2	必修
	A010205	财政制度比较研究	2	32	2	必修
	应修		8 学分			
选修课	A010206	区域财政问题研究	2	32	2	选修
	A010207	计量财政学	2	32	2	选修
	A010208	西方财税思想史	2	32	1	选修
	A010209	企业税收战略管理	2	32	2	选修
	A010218	中国税制改革专题	2	32	1	选修
	P010411	论文写作指导	2	32	2	选修

	A010304	公司金融	2	32	1	选修
	A010607	新制度经济学专题	2	32	1	选修
	A010211	财务会计理论与实务	2	32	1	选修
	A010213	公共经济学前沿研究	2	32	2	选修
	A010216	公共管理学	2	32	2	选修
	应修		≥8 学分			
课程总学分要求			≥39 学分			

说明：

（1） 补课说明（适用于非经济与管理专业本科生）

跨学科研究生必须在导师的指导下补充两门本科专业课程。补课采用闭卷考试的形式。不符合要求的学生需要重修同名本科课程。参加本科考试并通过考试的学生可以参加毕业论文答辩。没有学分。

（2） 在完成上述学分的基础上，研究生还可以在导师的指导下参加其他院校提供的相关课程。

五、授课语言

中文

六、必修环节（4 学分）

1. 学术讲座（1 学分）

财政学专业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。

2. 专业创新实践（1 学分）

财政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。

（1）学术研讨班：由导师指导、学生自主组织与管理、定期举行的学术研讨活动，学生须累计参加 10 次以上，参加其他大学学术研讨班的，也予以认可，但需经导师同意，并提供有关证据。

（2）课题研究：在导师指导下，学生参与导师的课题研究，累计工作时间不少于 40 小时。

（3）专业实践：学生到实习单位从事本学科专业领域的实际业务实践，累计实践时间不少于 3 个月，须经导师同意，并提供相关证明和接收单位鉴定。

（4）学科竞赛：学生完整地参加完一项学科竞赛，含全国性、全校性或学院主办的学科或专业竞赛，或者完成学校或学院组织的研究生科技立项一项，并提供相应竞赛或研究成果。

（5）社会服务：学生参加绩效评价、助管、助教及其他志愿者服务活动，累计服务时间不少于 40 小时。

3. 综合素养（2 学分）

德育：按照要求参加 3 次研究生院组织的“明德大讲堂”系列讲座学习；

体育：参加体育与艺术教学部组织的不少于 8 个学时的体育课程学习；

美育：参加体育与艺术教学部组织的不少于 8 个学时的艺术课程与艺术实践的学习，或修读其他艺术类课程不少于 8 学时；

劳动教育：由各学院和导师在研究生培养过程中根据不同学科培养特点予以贯彻实施。

七、培养环节及学位论文

财政学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。具体要求详见适用学生所在年级的《北京工商大学全日制学术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》、《经济学院硕士研究生在学期间公开发表论文的标准》等。

八、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。

Master of Public Finance Program

1.Training Target

Students have solid financial basic theory and systematic financial expertise.Students follow the frontier of contemporary financial theory, are familiar with the modern financial system and its operation law, have strong literature reading ability, can analyze and solve problems by using economic methods, information technology and financial practical skills, publish high-level papers, and have the ability to continue further study and independent scientific research.

2.Overview of the Program

(1)Research on fiscal theory and policy

Students systematically master the theories, methods and systems of social distribution, analyze the impact of fiscal and tax policies on resource allocation, including macro, meso and micro allocation in various fields, effectively stimulate and restrict social and economic activities, and promote the sustainable and healthy development of social economy.

The specific research contents mainly include: studying the impact of Finance and Taxation on factor price, income distribution and macro-economy; Research and improvement of fiscal and tax policies for specific groups. Focus on fiscal and tax policy econometric research and government performance evaluation.

(2) Research on regional financial issues

Students systematically master the basic theories and policy analysis methods of public resources allocation in regional space, which can provide financial and tax policy analysis for import and export trade, investment attraction, pillar industry selection and cross regional flow of factors in various regions, and provide the best scheme for cross regional layout of enterprises. Graduates have the ability to allocate resources for enterprises across regions and provide consultation for local governments in attracting investment.

The specific research contents mainly include: the impact of financial system and intergovernmental division of labor on social distribution, regional differences in the scale, structure and form of fiscal revenue and expenditure, modern budget system and local public expenditure efficiency, and empirical analysis of the impact of fiscal and tax policies on industrial development, import and export trade, factor flow and other economic activities in different regions.

3. Length of Schooling

The length of schooling is three years, with a maximum of five years.

4. Curriculum and Credits Requirements

To complete the whole program, students should complete 43 credits, including 39 credits in course study and 4 credits in practices. The 39 credits include 31 credits in compulsory courses

and 8 credits in elective courses. The 4 credits include 2 credits, which should take part in the research project of the supervisor or seminars and 2 credits in Comprehensive literacy.

All of the students are required to pass all the course exams organized by BTBU. The students who pass the exams can obtain the credits for the courses. Any student who completes all the required credits is allowed to write a thesis.After completing the required course credits, graduate students must participate in the mid-term examination of the course. After passing the examination, they can participate in the defense of their dissertations. Students who successfully defend their thesis are entitled to be conferred the economy according to the degree application procedure.

Table 1 description of categories and composition of academic postgraduate courses

Course	**Credit Requirements**	**Course Type**	**Credit Requirements**
Public Course	10	Basic Courses	13
Core Course	8	Major Optional Course	≥8
Discipline Core Course	4	Credits	≥43
Credit description	Total credits = Course credits + Discipline Core Course On the basis of completing the above specified credits, graduate students can also take postgraduate courses offered by other colleges in the University under the guidance of their tutors.		

Table 2 postgraduate curriculum and credit requirements

Course Classification	Course Code	Course Name	Credits	Course Hours	Semester	Compulsory/ Optional
Public Course	I010102	Chinese Culture	2	32	1	Compulsory
	I070107	HSK（Level Ⅳ）A	2	32	1	Compulsory
	I070108	HSK（Level Ⅳ）B	2	32	2	Compulsory
	I070109	HSK（Level Ⅴ）A	2	32	3	Compulsory
	I070110	HSK（Level Ⅴ）B	2	32	4	Compulsory
	Credits Requirement		10 credits			
Basic Courses	A010102	Intermediate microeconomics	3	48	1	Compulsory

	A010103	Intermediate macroeconomics	3	48	2	Compulsory
	A010104	Intermediate Econometrics	3	48	1	Compulsory
	A010609	Intermediate Political Economics	2	32	2	Compulsory
	A010204	Professional English (in Public Finance)	2	32	2	Compulsory
	Credits Requirement		13 credits			
Discipline Core Course	A010201	Research on public finance theory	2	32	1	Compulsory
	A010202	Theories and Policies of Taxation	2	32	1	Compulsory
	A010203	Governmental Budget and Performance Management	2	32	2	Compulsory
	A010205	Financial system comparative study	2	32	2	Compulsory
	Credits Requirement		8 credits			
Major Optional Course	A010206	Research on Regional Financial Problems	2	32	2	Elective
	A010207	Econometric Public Finance	2	32	2	Elective
	A010208	History of Western Thoughts in Public Finance and Taxation	2	32	1	Elective
	A010209	Enterprise tax strategic management	2	32	2	Elective
	A010218	Topics on Chinese Tax Reform	2	32	1	Elective
	A010304	Corporate finance	2	32	1	Elective
	P010411	Thesis Writing Guidance	2	32	2	Elective
	A010607	New Institutional Economics	2	32	1	Elective

	A010211	Theory and practice of financial accounting	2	32	1	Elective
	A010213	Frontier research in Public Economics	2	32	2	Elective
	A010216	Science of Public Administration	2	32	2	Elective
	Credits Requirement		⩾8 credits			
Total Credits			≥39 credits			

(1) Description of remedial courses (applicable to undergraduate majoring in non-economic and management)

Interdisciplinary graduate students must supplement two undergraduate major courses under the guidance of a tutor. The remedial courses are in the form of closed-book exams. Students who fail to meet the requirements need to retake the undergraduate courses with the same name. Students who take the undergraduate course examination and pass the examination can participate in the defense of graduation thesis.

(2) On the basis of completing the above-mentioned credits, graduate students can also take relevant courses offered by other colleges under the guidance of their tutors.

5. Teaching Language

Chinese

6. Practice Part

(1) Academic activities(1 credit)

Students must attend at least 10 special lectures, academic reports or graduate forums recognized by graduate schools, colleges and discipline organizations.

(2) Professional innovation practice(1 credit)

Professional innovation practice includes academic seminars, scientific research, professional practice, discipline competitions, social services and other activities. At least 4 of the 5 activities shall be completed as required.

①Academic seminar: academic seminar activities that are guided by tutors, independently organized and managed by students and held regularly. Students must participate in more than 10 times in total. If they participate in academic seminars in other universities, they will also be recognized, but they need the consent of tutors and provide relevant evidence.

②Subject research: under the guidance of the tutor, students participate in the subject research of the tutor, and the cumulative working time shall not be less than 40 hours.

③Professional practice: students who come to the internship unit to engage in the actual business practice in the professional field of the discipline, with a cumulative practice time of no less than 3 months, must be approved by the tutor, and provide relevant certificates and identification of the receiving unit.

④Discipline competition: students complete a discipline competition, including a national,

school wide or college sponsored discipline or professional competition, or complete a graduate science and technology project organized by the school or college, and provide corresponding competition or research results.

⑤Social services: students participate in performance evaluation, management assistance, teaching assistants and other volunteer service activities, and the cumulative service time shall not be less than 40 hours.

3. Comprehensive literacy (2 credits)

Moral education: students participate in the "Mingde" series of lectures organized by the graduate school for three times as required;

Physical education: students participate in physical education courses of no less than 8 class hours organized by the physical education and art teaching department;

Aesthetic Education: students participate in art courses and art practice organized by the physical education and art teaching department for no less than 8 hours, or take other art courses for no less than 8 hours;

7. The Dissertation Related Work

The Capstone presentation is conduct in the end of third term. The process inspection is conduct in the beginning of fifth term. The review of scientific research results, including repetition rate detection, anonymous review and oral defense, is conduct in the beginning of sixth term.

8. Course Syllabus

The content of the course syllabus includes the course code, course name, course hours, credits, learning outcomes, teaching methods, assessments, grading, applicable disciplines, prerequisites, course schedules and hours allocation, references, etc.

产业经济学硕士留学研究生培养方案

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

遵守中国宪法法治；掌握产业经济学基础理论和系统的专门知识，了解学科发展前沿；注重理论联系实际，在强化产业经济学基础的同时，加强对中国和国际现实产业经济问题的剖析，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的成果。

二、学科简介与研究方向

产业经济学学科前身是北京商学院的贸易经济学专业，至今有 50 多年的历史。1979 年开始招收商业经济学硕士研究生，1981 年正式获批商业经济硕士点，1997 年更名为产业经济学硕士点，1997 年成为原商业部重点学科，2003 年至今是北京市重点学科，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）。

本学科教师的社会兼职有中国农业经济学会副会长、中国商业联合会专业工作委员会副秘书长、中国商业经济学会副秘书长、中国市场学会常务理事、流通专业委员会副秘书长、中国市场指导委员会副会长、中国物流学会副秘书长等。

本学科的研究方向分为三类，具体如下：

1．流通产业研究

2．产业组织理论与产业政策

3．期货市场与产业发展

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。

四、课程设置与学分要求

1.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。

2.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。

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	I010102	中国概况	2	32	1	必修
	I070111	汉语（一级）	4	64	1	必修
	I070112	汉语（二级）	4	64	2	必修
	I070113	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	PI010601	经济学分析与应用	2	32	3	必修
	AI010102	产业经济学导读	2	32	1	必修
	AI010104	管理研究方法论	2	32	3	必修
	应修		6 学分			
专业课	AI010101	产业组织理论	2	32	2	必修
	AI010103	现代农业产业研究	2	32	2	必修
	AI010106	期货市场研究	2	32	3	必修

	AI010110	电子商务产业研究	2	32	2	必修
	AI010107	流通经济前沿问题研究	2	32	4	必修
	应修		10 学分			
选修课	PI010615	一带一路专题研究	2	32	2	选修
	AI010108	消费经济专题研究	2	32	4	选修
	AI010112	经济问题研讨	2	32	2	选修
	PI010604	国际金融理论与实务	2	32	2	选修
	AI010113	学术论文写作与研究方法	2	32	2	选修
	AI010111	STATA 数据管理及应用	2	32	1	选修
	应修		≥8 学分			
必修环节		学术活动	1		1-4	
		专业实践	1		1-4	
		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。

五、授课语言

英文

六、必修环节（2 学分）

1. 学术讲座（1 学分）

产业经济学专业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。

2. 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》。

七、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》、《经济学院硕士研究生在学期间公开发表论文的标准》等。

八、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。

Master of Industrial Economics program

I. Training Target

Abiding by the Chinese constitution and the rule of law; master the basic theory and systematic expertise of industrial economics, and understand the frontier of discipline development; pay attention to the combination of theory and practice, strengthen the foundation of industrial economics and, at the same time, strengthen the ability to analyze realistic industrial economic problems in China, gain creative results in the fields of circulation industry research, industrial organization and theory and industrial policy, and futures market research.

Ⅱ. Overview of the Program

Industrial economics, formerly known as trade economics, has been established more than 50 years. In 1979, it began to recruit postgraduate students of business economics. In 1981, the master's degree of business economics was officially approved. In 1997, it was renamed as the master's degree of industrial economics. It became the key discipline of the former ministry of commerce of China in 1997, and has been the key discipline of Beijing since 2003. Moreover, it has approved "Applied Economics" discipline doctoral degree authorization point (Industrial Economics direction) in 2018.

The research and academic employment of the teachers mainly include the vice-chairman of the Chinese agricultural economics society, the vice secretary of the professional committee of China commercial federation, the vice secretary of the China commercial economy society, and the Executive director of China marketing society, etc.

The research direction of this discipline is divided into three categories, which is listed as follows:

(1) Circulation Industry Research

(2) Industrial Organization Theory and Industrial Policy

(3) Futures Market and Industry development

Ⅲ. Length of Schooling

The length of schooling is three years, with a maximum of five years.

Ⅳ. Curriculum and Credits Requirements

1. Curriculum setting

To complete the whole program, students should complete 48 credits, including 40 credits in course study and 38 credits in practices. The 38 credits include 30 credits in compulsory courses and 8 credits in elective courses. The 2 credits include 1 credit in participating at least 10 seminars and 1 credit in participating innovation practice by following the supervisor's instructions.

2. Curriculum assessment

All courses and compulsory parts in the training program should be examined and the credits can be obtained by passing examination. Postgraduate course assessment is divided into examination and test. Degree courses are all closed-book examination, whereas non-degree courses can be passed by examination or test.

The aggregate score is 100 and the bottom line to pass is 60. The score is made of usual grades and final examination grades, and the usual grades account for 30%-50%. The usual grades must include course paper and also can be measured by usual test, reading report, assignment, discussion, etc. The usual grades of social science must include the score of short paper.

Those who don't pass the compulsory course examination will not be allowed to take examination again but to retake the course with the next grade. Those who don't pass the elective course examination are allowed to retake the course or change the course with the permission of the tutor.

The score can be obtained by taking the course or passing the examination again, or the students will not be allowed to take part in the thesis defense.Postgraduates must take part in the mid-term assessment after obtaining the required course credits. Only passing this assessment, students can take part in the process of evaluating their thesisqualification.

Table 1 Curriculum categories and structure

Course Classification	**Credit Requirements**	**Categories**	**Credit Requirements**
Public course	14	Basic course	6
Discipline course	10	Major Optional course	≥8
Compulsory course	2	**Total credits**	≥40

Table 2 Curriculum and Credits Requirements

Course Classification	**Course Code**	**Course Name**	**Credits**	**Course Hours**	**Semester**	**Compulsory/ Optional**
Public Course	I010102	Chinese Culture	2	32	1	Compulsory
	I070111	HSK（Level Ⅰ）	4	64	1	Compulsory
	I070112	HSK（Level Ⅱ）	4	64	2	Compulsory
	I070113	HSK（Level Ⅲ）	4	64	3	Compulsory
	Credits Requirement		14 credits			
Basic Courses	PI 010601	Economic Analysis and Application	2	32	3	Compulsory
	AI 010102	Introduction to Industrial Organization	2	32	1	Compulsory
	AI010104	Management Research Methodology	2	32	3	Compulsory

	Credits Requirement		6 credits			
Discipline Core Course	AI010101	Industrial Organizational Theory	2	32	2	Compulsory
	AI010103	Modern Agricultural Industry	2	32	2	Compulsory
	AI010106	Futures Market Research	2	32	3	Compulsory
	AI010110	E-commerce Industry Research	2	32	2	Compulsory
	AI010107	Research on the Frontier of Circulation Economy	2	32	4	Compulsory
	Credits Requirement		10 credits			
Major Optional Course	PI010615	Seminar on the "Belt and Road" Initiative	2	32	2	Optional
	AI010108	Study on Consumer Economy	2	32	4	Optional
	AI010112	Discussion on Economic Issues	2	32	2	Optional
	PI010604	International Finance and Practices	2	32	2	Optional
	AI010113	Academic Paper Writing and Research Methods	2	32	2	Optional
	AI010111	Data management and analysis using STATA	2	32	1	Optional
	Credits Requirement		⩾8 credits			
Practice Part		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			≥40 credits			

Ⅴ. Teaching Language

English

Ⅵ. Compulsory Course (2 credits)

1. Academic lectures (1 credit)

Master students majoring in industrial economics must attend at least 10 special lectures, academic reports or graduate forums organized or recognized by graduate schools, colleges or specialized subject.

2. Professional innovation practice (1 credit)

The professional innovation practices of master degree students majoring in industrial economics include academic seminars, scientific research, professional practice, discipline specialized subject competitions, social services and other activities. At least 4 of the 5 activities should be completed as required. For details, see the regulations on the management of the cultivation of full-time Master degree students of Beijing Technology and Business University.

Ⅶ. The Dissertation Related Work

The related parts and dissertation work in the training process of industrial economics master degree candidates include thesis opening defense, mid-term examination, scientific research results examination, paper repetition rate detection, anonymous evaluation and dissertation defense. For specific requirements, please refer to the “Dissertation Norms for Doctoral Students in Beijing Technology and Business University”, “Implementation Rules on Conferring Doctor's and Master's Degrees for International Students in Beijing Technology and Business University”, and “Master Degree Candidates Thesis Publication Standards in the School of Economics ”.

Ⅷ. Training ProgramSchedule

The course syllabus includes course code, course name, class hours, credits, teaching objectives, teaching methods, assessment methods, applicable subjects, prerequisite courses, main teaching contents and class hour distribution, references, etc.

金融硕士留学研究生培养方案

授予学位类别：金融

专业学位类别代码及名称：0251 金融

制订单位：经济学院

一、培养目标

金融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。

金融专业培养具有国际化视野，系统掌握经济金融学和现代信息科技理论知识，熟悉金融实务操作，能够将大数据技术分析方法、人工智能等前沿技术应用于现代金融服务业，具备金融素养和科技技能的交叉创新复合型金融应用人才。

二、领域简介与研究方向

金融硕士专业侧重于（1）数字货币，研究区块链技术、现代密码技术，及法定数字货币、私人数字货币等发展与影响；（2）监管科技，研究如何利用大数据、人工智能等科技手段，识别、监测和防范金融机构、金融科技公司、互联网平台企业等金融部门的潜在风险与监管；（3）银行科技，研究智慧银行、开放银行、大数据与银行普惠金融等。

金融研究方向为数字货币、监管科技、银行科技。

三、学制和学习年限

金融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。

四、课程设置与学分要求

1. 课程设置

金融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 38 学分。学分组成为：必修课程共计 34 学分，其中公共基础课程不少于 14 学分，学科基础课程 8 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不少于 4 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。

2. 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。

金融专业来华留学硕士研究生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。

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	8
专业课	12	选修课	≥4
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	I010102	中国概况	2	32	1	必修
	I070111	汉语（一级）	4	64	1	必修
	I070112	汉语（二级）	4	64	2	必修
	I070113	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	PI010601	经济学分析与应用	2	32	1	必修
	PI170301	微观经济学	2	32	1	必修
	PI170302	宏观经济学	2	32	2	必修
	PI170303	金融科技学	2	32	1	必修
	应修		8 学分			

专业课	PI170304	区块链技术与应用	2	32	1	必修
	PI170305	金融大数据分析	2	32	2	必修
	PI170306	监管科技	2	32	2	必修
	PI170307	商业银行管理	2	32	2	必修
	PI170308	固定收益证券	2	32	2	必修
	PI010606	研究方法与论文写作	2	32	2	必修
	应修		12 学分			
选修课	PI010604	国际金融理论与实务	2	32	2	必修
	PI170404	财务报表分析	2	32	1	选修
	PI010616	跨文化沟通	2	32	1	选修
	PI010615	“一带一路”专题研讨	2	32	2	选修
	应修		≥4 学分			
课程总学分要求			≥38 学分			

说明：具体要求参照同学历层次国内生相应要求。

五、授课语言

英文

六、必修环节（7 学分）

1. 创新实践（1 学分）

金融专业来华留学硕士研究生修学期间参加校内举办的行业前沿讲座 5 场以上，或参加学科竞赛 1 次以上，经导师审核认定完成创新实践活动。

2. 专业实践（6 学分）

金融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。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。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。

七、培养环节及学位论文

金融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（试行）》。

八、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。

Master of Finance Program

1. Training Target

Students studying in China should be familiar with history, geography, society, economy and other basic knowledge of China's national conditions and culture; understand China's political system and foreign policies; understand the mainstream values and public morality of Chinese society; and form a good concept of rule, law and moral consciousness.

2. Overview of the Program

The program focuses on (1) Digital Currency: Research on the application and development of Blockchain technology, modern cryptography technology, legal digital currency, and private digital currency; (2) FinTech Regulation: Using big data, artificial intelligence and other scientific technologies to identify, monitor and prevent potential risks from financial institutions, fintech companies, Internet platform enterprises and other financial sectors; (3) Banking Technology: Research on smart banking, open banking, big data and inclusive finance, blockchain and supply chain finance; (4) Smart Finance: Research on artificial intelligence technology, fintech and quantitative investment, and investment algorithms.

3. Length of Schooling

The duration is generally 2 years for full-time students which should not be longer than 4 years.

4. Curriculum and Credits Requirements

(1) Curriculum Setting

The courses of the program are divided into compulsory courses and optional courses. Students should complete no less than 38 credits, including 34 credits in compulsory courses and 4 credits in optional courses. The credits in compulsory courses include 14 credits of public courses, 8 credits of basic courses and 12 credits of professional courses. And the optional courses should be chosen under the supervisor's guide and suggestion.

On the basis of completing the above required credits, the student may take postgraduate courses offered by other schools of BTBU under the guidance of the supervisor.

At the same time of completing the course, 7 credits in practice is also required.

(2) Course Assessment

All courses in the plan should be assessed, and credits can be obtained after passing assessment. The assessment of postgraduate courses can be organized in two ways: exam or test. Degree courses should be assessed by closed book exam, and non-degree courses can be assessed by test or exam.

Postgraduate course assessment results are assessed according to the 100 mark system, and 60 is qualified. The course assessment result is composed of the class performance score and the final exam score. Class performance accounts for 30%-50% of the total score. The class performance score can be conducted in the form of course papers, tests, reading reports,

homework scores, class discussions, etc.

If you fail in the examination of compulsory courses, you should apply for retaking them with the next grade. If the optional course is not qualified, it is allowed to retake the exam with the next grade or change to another optional course with the supervisor's approval.

Those who pass retaking exam or test can get credits. Those who still fail to pass the retaking exam cannot participate in the dissertation defense. After completing the required course credits, students must attend the mid-term assessment. Only after passing the mid-term assessment, students can participate in the dissertation defense.

All students should pass at least the HSK 3 before graduation.

Table 1 Description of Postgraduate Course Category and Composition

Course Classification	**Credit Requirements**	**Course Classification**	**Credit Requirements**
Public Course	14	Basic Course	8
Professional Course	12	Optional Course	≥4
Practice	7	Total Credits	≥45
Note	Total credits = Course credits + Practice credits		

Table 2 Curriculum Setting and Credits Requirements for Professional Degree Postgraduates

Course Classification	**Course Code**	**Course Name**	**Credits**	**Course Hours**	**Semester**	**Compulsory/ Optional**
Public Course	I010102	Chinese Culture	2	32	1	Compulsory
	I070111	HSK（Level Ⅰ）	4	64	1	Compulsory
	I070112	HSK（Level Ⅱ）	4	64	2	Compulsory
	I070113	HSK（Level Ⅲ）	4	64	3	Compulsory
	Credits Requirement		14 Credits			
Basic Course	PI170101	Economic Analysis and Application	2	32	1	Compulsory
	PI170301	Microeconomics	2	32	1	Compulsory
	PI170302	Macroeconomics	2	32	2	Compulsory
	PI170303	Financial Technology	2	32	1	Compulsory
	Credits Requirement		8 Credits			
Professional Course	PI170304	Block Chain Technology and Applications	2	32	1	Compulsory
	PI170305	Financial Big Data Analysis	2	32	2	Compulsory

	PI170306	Regulation Technology	2	32	2	Compulsory
	PI170307	Commercial Banking Management	2	32	2	Compulsory
	PI170308	Fixed Income Securities	2	32	2	Compulsory
	PI010606	Research Methodology and Thesis Writing	2	32	2	Compulsory
	Credits Requirement		12 Credits			
Optional Course	PI010604	International Finance and Practice	2	32	2	Optional
	PI170404	Financial Statement Analysis	2	32	1	Optional
	PI010612	Intercultural Communication	2	32	1	Optional
	PI170108	Seminar on the “Belt and Road Initiative”	2	32	2	Optional
	Credits Requirement		⩾4 Credits			
Total Credits			⩾38 Credits			

Note: The detailed requirements refer to the corresponding requirements of domestic students at the same educational level.

5. Teaching Language

English

6. Practice Part

(1) Innovative Practice (1 credit)

During the study period of the program, students should participate in more than 5 lectures on the frontier topic of the industry held in the university, 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.

7. The Dissertation Related Work

In the process of cultivating foreign graduate students, relevant dissertation work includes thesis proposal defense, mid-term examination, review of scientific research results, paper repetition rate detection, anonymous review, and thesis defense. For specific requirements, please refer to "Detailed Rules for Granting Doctoral and Master's Degrees to Overseas Graduate Students of Beijing Technology and Business University (Trial)".

8. Course Syllabus

The contents of the syllabus include course code, course name, course hours, credits, teaching objectives, teaching methods, examination methods, applicable majors, prerequisite courses, main teaching contents and time allocation, references, etc.

国际商务硕士留学研究生培养方案

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。

二、领域简介与研究方向

国际商务专业硕士学位授予权于 2010 年获批，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 1 人、副教授 8 人、讲师 5 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。

国际商务专业现设“一带一路”国际商务、跨国公司经营、国际大宗商品贸易三个研究方向。

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。

四、课程设置与学分要求

1. 课程设置

国际商务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 48 学分。学分组成为：必修课程共计 33 学分，其中公共基础课程不少于 14 学分，学科基础课程 7 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。

2. 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。

国际商务专业来华留学硕士研究生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。

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	7
专业课	12	选修课	≥8
必修环节	7	总学分	≥48
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	I010102	中国概况	2	32	1	必修
	I070111	汉语（一级）	4	64	1	必修
	I070112	汉语（二级）	4	64	2	必修
	I070113	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	PI010601	经济学分析与应用	2	32	1	必修
	PI010602	商务英语	3	48	2	必修
	PI010607	国际商务	2	32	1	必修
	应修		7 学分			
专业课	PI010603	国际投资与跨国企业管理	2	32	2	必修
	PI010604	国际金融理论与实务	2	32	2	必修
	PI010606	研究方法与论文写作	2	32	2	必修
	PI010608	国际贸易政策与实务	2	32	1	必修

	PI010609	国际商务谈判	2	32	1	必修
	PI010610	国际商法	2	32	2	必修
	应修		12 学分			
选修课	PI010605	国际市场营销	2	32	2	选修
	PI010611	国际结算专题	2	32	2	选修
	PI010616	跨文化沟通	2	32	1	选修
	PI010613	WTO 专题研讨	2	32	2	选修
	PI010614	中国对外贸易专题	2	32	1	选修
	PI010615	“一带一路”专题研讨	2	32	2	选修
	AI010110	电子商务产业研究	2	32	2	选修
	PI170103	数字贸易专题研究	2	32	2	选修
	应修		≥8 学分			
课程总学分要求			≥41 学分			

说明：具体要求参照同学历层次国内生相应要求。

五、授课语言

英文

六、必修环节（7 学分）

1. 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校内举办的行业前沿讲座 5 场以上，或参加学科竞赛 1 次以上，经导师审核认定完成创新实践活动。

2. 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。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。

七、培养环节及学位论文

国际商务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》。

八、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。

Master of International Business Program

（School of Economics）

1. Training Target

MIB Program at BTBU aims to foster the high-level, application-oriented and inter-disciplinary business professionals who can meet the demand of economic globalization, compete in international business operation, practice and management in foreign enterprises, government departments and social organizations.

Students studying in China should be familiar with history, geography, society, economy and other basic knowledge of China's national conditions and culture; understand China's political system and foreign policies; understand the mainstream values and public morality of Chinese society; and form a good concept of rule, law and moral consciousness.

2. Overview of the Program

Since 2010, BTBU has been approved the right to grant MIB degree. We have started to enroll both domestic and international graduate students since 2014. There are 14 teachers in this major, including 1 professor, 8 associate professors, 5 lecturers. We have 2 doctoral supervisor and 11 master supervisors.

BTBU MIB program focuses on cultivating the high-level comprehensive applied talents, in order to serve trade enterprises engaged in traditional and emerging manufacturing industry, modern service industry, international direct investment and outsourcing companies, government management departments, industrial associations, trade and investment promotion agencies, education, scientific research institutions and international organizations, etc. This program highlights the close combination of theory study and practice training, emphasizes the international education system and pays attention to the cultivation of innovative spirit and practical ability.

This major includes three research directions: The "Belt and Road Initiative" International Business (BRI); Transnational Corporation Operation (TNC Operation); International bulk commodity trade.

3. Length of Schooling

The duration is generally 2 years for full-time students which should not be longer than 4 years.

4. Curriculum and Credits Requirements

(1) Curriculum Setting

The courses of MIB program are divided into compulsory courses and optional courses. Students should complete no less than 48 credits, including 33 credits in compulsory courses and 8 credits in optional courses. The credits in compulsory courses include 14 credits of public courses,

7 credits of basic courses and 12 credits of professional courses. And the optional courses should be chosen under the supervisor's guide and suggestion.

On the basis of completing the above required credits, the student may take postgraduate courses offered by other schools of BTBU under the guidance of the supervisor.

At the same time of completing the course, 7 credits in practice is also required.

(2) Course Assessment

All courses in the plan should be assessed, and credits can be obtained after passing assessment. The assessment of postgraduate courses can be organized in two ways: exam or test. Degree courses should be assessed by closed book exam, and non-degree courses can be assessed by test or exam.

Postgraduate course assessment results are assessed according to the 100 mark system, and 60 is qualified. The course assessment result is composed of the class performance score and the final exam score. Class performance accounts for 30%-50% of the total score. The class performance score can be conducted in the form of course papers, tests, reading reports, homework scores, class discussions, etc.

If you fail in the examination of compulsory courses, you should apply for retaking them with the next grade. If the optional course is not qualified, it is allowed to retake the exam with the next grade or change to another optional course with the supervisor's approval.

Those who pass retaking exam or test can get credits. Those who still fail to pass the retaking exam cannot participate in the dissertation defense. After completing the required course credits, MIB students must attend the mid-term assessment. Only after passing the mid-term assessment, students can participate in the dissertation defense.

All MIB students should pass at least the HSK 3 before graduation.

Table 1 Description of Postgraduate Course Category and Composition

Course Classification	Credit Requirements	Course Classification	Credit Requirements
Public Course	14	Basic Course	7
Professional Course	12	Optional Course	⩾8
Practice	7	Total Credits	⩾48
Note	Total credits = Course credits + Practice credits		

Table 2 Curriculum Setting and Credits Requirements for Professional Degree Postgraduates

Course Classification	Course Code	Course Name	Credits	Course Hours	Semester	Compulsory/ Optional
Public Course	I010102	Chinese Culture	2	32	1	Compulsory
	I070111	HSK（Level Ⅰ）	4	64	1	Compulsory
	I070112	HSK（Level Ⅱ）	4	64	2	Compulsory

	I070113	HSK（Level Ⅲ）	4	64	3	Compulsory
	Credits Requirement		14 Credits			
Basic Course	PI010601	Economic Analysis and Application	2	32	1	Compulsory
	PI010602	Business English	3	48	2	Compulsory
	PI010607	International Business	2	32	1	Compulsory
	Credits Requirement		7 Credits			
Professional Course	PI010603	International Investment and Transnational Enterprises Management	2	32	2	Compulsory
	PI010604	International Finance and Practice	2	32	2	Compulsory
	PI010606	Research Methodology and Thesis Writing	2	32	2	Compulsory
	PI010608	International Trade Policy and Practice	2	32	1	Compulsory
	PI010609	International Business Negotiation	2	32	1	Compulsory
	PI010610	International Business Law	2	32	2	Compulsory
	Credits Requirement		12 Credits			
Optional Course	PI010605	International Marketing	2	32	2	Optional
	PI010611	International Settlement	2	32	2	Optional
	PI010616	Intercultural Communication	2	32	1	Optional
	PI010613	Study on WTO Issues	2	32	2	Optional
	PI010614	China’s Foreign Trade	2	32	1	Optional
	PI010615	Seminar on the “Belt and Road Initiative”	2	32	2	Optional
	AI010110	E-commerce Industry Research	2	32	2	Optional

	PI170103	Seminar on Digital Trade	2	32	2	Optional
	Credits Requirement		≥8 Credits			
Total Credits			⩾41 Credits			

Note: The detailed requirements refer to the corresponding requirements of domestic students at the same educational level.

5. Teaching Language

English

6. Practice Part

(1) Academic Communication (1 credit)

During the study period of MIB program, students should participate in more than 5 lectures on the frontier topic of the industry held in the university, 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. Or, 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.

7. The Dissertation Related Work

In the process of cultivating foreign graduate students, relevant dissertation work includes thesis proposal defense, mid-term examination, review of scientific research results, paper repetition rate detection, anonymous review, and thesis defense. For specific requirements, please refer to “Detailed Rules for Granting Doctoral and Master’s Degrees to Overseas Graduate Students of Beijing Technology and Business University (Trial)”.

8. Course Syllabus

The contents of the syllabus include course code, course name, course hours, credits, teaching objectives, teaching methods, examination methods, applicable majors, prerequisite courses, main teaching contents and time allocation, references, etc.

税务硕士留学研究生培养方案

授予学位类别：税务

专业学位类别代码及名称：0253 税务

制订单位：经济学院

一、培养目标

税务专业面向财政、税务、司法等国家机关、金融机构、企事业单位、社会服务机构等相关部门，培养具备良好的政治思想素质和职业道德素养，通晓税收基础理论，熟练掌握现代税务实践技能，具备税务分析、评估和规划能力，能够从事涉税相关职业所需的专业知识与技能的高层次、应用型专门人才。

二、领域简介与研究方向

税务专业硕士的培养方向是：企业财务的税务处理。特色在于把握税收理论前沿和税收制度变动趋势，熟练掌握税收制度与税务处理实务。实行校内外双导师制、建立了十多个高层次实习基地，践行理论联系实际的学习模式。学生具备为企业节税降成本的能力，这种能力也适用于税务机关、事业单位、中介咨询机构的税收筹划工作。

三、学制和学习年限

全日制硕士研究生学习年限一般为 2 年，最长不得超过 4 年。实行学分制。其中，课程学习时间为 1 年，专业实践时间不少于半年，应届毕业生实践教学时间原则上不少于 1 年，学位论文时间不少于半年。全日制硕士研究生不得提前毕业。

四、课程设置与学分要求

1．课程设置

税务专业硕士研究生所修课程分必修课和选修课，课程总学分不得少于 36 学分。学分组成为：必修课程共计 26 学分，其中公共基础课程 10 学分，学科基础课程 7 学分，专业课程 9 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 10 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 9 学分。

2.课程考核

所有学生都必须通过学校组织的所有课程考试。通过考试的学生可以获得课程学分。任何完成所有学分要求的学生都可以写论文。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。根据学位申请程序，成功答辩论文的学生有权获得经济学位。

表 1 税务硕士专业学位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	≥10	基础课	7
专业课	9	选修课	≥10
必修环节	9	总学分	≥45
学分说明	总学分=课程学分+必修环节学分		

表 2 税务硕士专业学位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	I010102	中国概况	2	32	1	必修
	I070107	汉语（四级）上	2	32	1	必修
	I070108	汉语（四级）下	2	32	2	必修
	I070109	汉语（五级）上	2	32	3	必修
	I070110	汉语（五级）下	2	32	4	必修
	应修		≥10 学分			
基础课	A010202	税收理论与政策	2	32	1	必修
	A010210	中国税制专题	3	48	1	必修
	A010211	财务会计理论和实务	2	32	1	必修
	应修		7 学分			
专业课	P010312	纳税评估专题	2	32	2	必修
	P010303	税务管理专题	3	48	1	必修
	P010313	企业税务筹划专题	2	32	2	必修
	P010305	高级税务会计	2	32	1	必修
	应修		9 学分			
选修课	P010309	国际税收专题	2	32	1	选修
	P010315	税务稽查专题	2	32	2	选修
	P010308	税务风险与税务争议	2	32	2	选修
	P010314	企业税务相关法律	2	32	2	选修
	P010311	财务管理与财务报表分析	2	32	2	选修

	P010412	税收大数据分析与应用	2	32	2	选修
	P010411	论文写作指导	2	32	2	选修
	P010413	数字税务	2	32	2	选修
	A010207	计量财政学	2	32	2	选修
	A010213	公共经济学前沿研究	2	32	2	选修
	应修		≥10 学分			
课程总学分要求			≥36 学分			

说明：

（1） 补课说明（适用于非经济与管理专业本科生）

跨学科研究生必须在导师的指导下补充两门本科专业课程。补课采用闭卷考试的形式。不符合要求的学生需要重修同名本科课程。参加本科考试并通过考试的学生可以参加毕业论文答辩。没有学分。

（2） 在完成上述学分的基础上，研究生还可以在导师的指导下参加其他院校提供的相关课程。

五、授课语言

中文

六、必修环节（9 学分）

1．专业实践（6 学分）

税务专业硕士研究生在学期间，必须保证不少于半年的专业实践，可采用集中实践与分段实践相结合的方式；专业实践是指在会计、税务事务所、审计事务所、国地税局等政府管理部门、企业等涉税单位工作实习，应届毕业生的专业实践时间原则上不少于 1 年。

专业实践环节的考核采用学分制。实践环节一般安排在第 2-3 学期进行，该环节累计工作量不得少于 320 学时（每周 20 学时，按 16 周计算），要求提交实践学习计划，撰写专业实践总结报告。

2．创新实践（1 学分）

税务专业硕士研究生修学期间参加校内举办的行业前沿讲座 5 场以上，或参加学科竞赛 1 次以上，或参加绩效评价服务活动等经导师审核认定完成创新实践活动。

3. 综合素养（2 学分）

德育：按照要求参加 3 次研究生院组织的“明德大讲堂”系列讲座学习；

体育：参加体育与艺术教学部组织的不少于 8 个学时的体育课程学习；

美育：参加体育与艺术教学部组织的不少于 8 个学时的艺术课程与艺术实践的学习，或修读其他艺术类课程不少于 8 学时；

劳动教育：由各学院和导师在研究生培养过程中根据不同学科培养特点予以贯彻实施。

七、培养环节及学位论文

税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》、《北京工商大学关于博士、硕士学位授予工作实施细则》。

八、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。

Master of Taxation Program

1. Training Target

This Program trains students for state organs, financial institutions, enterprises and institutions and social service institutions such as finance, taxation and justice.Students have good political and ideological quality and professional ethics, are familiar with basic tax theory, master modern tax practice skills, have the ability of tax analysis, evaluation and planning, and can engage in the professional knowledge and skills required for tax related occupations.

2. Overview of the Program

Program training direction: Tax treatment of enterprise finance.

Students will master the frontier of tax theory and the change trend of tax system, and be proficient in tax system and tax treatment practice.The project implements the dual tutorial system inside and outside the school, establishes more than ten high-level practice bases, and implements the learning mode of integrating theory with practice.Students have the ability to save taxes and reduce costs for enterprises, which is suitable for tax planning of tax authorities, public institutions and intermediary consulting institutions.

3. Length of Schooling

The length of study for full-time master's degree graduates is generally 2 years, and the maximum length of study should not exceed 4 years. The credit system is implemented. Among them, the course study time is 1 year, the professional practice time is not less than half a year, the practical teaching time of fresh graduates is not less than 1 year in principle, and the degree thesis time is not less than half a year.

4. Curriculum and Credits Requirements

All of the students are required to pass all the course exams organized by BTBU. The students who pass the exams can obtain the credits for the courses. Any student who completes all the required credits is allowed to write a thesis.After completing the required course credits, graduate students must participate in the mid-term examination of the course. After passing the examination, they can participate in the defense of their dissertations. Students who successfully defend their thesis are entitled to be conferred the economy according to the degree application procedure.

Table 1 description of categories and composition of academic postgraduate courses

Course	Credit Requirements	Course Type	Credit Requirements
Public Course	⩾10	Basic Courses	7
Core Course	9	Major Optional Course	⩾10
Discipline Core Course	9	Credits	⩾45
Credit description	Total credits = course credits + Discipline Core Course		

Table 2 postgraduate curriculum and credit requirements

Course Classification	Course Code	Course Name	Credits	Course Hours	Semester	Compulsory/ Optional
Public Course	I010102	Chinese Culture	2	32	1	Compulsory
	I070107	HSK（Level Ⅳ）A	2	32	1	Compulsory
	I070108	HSK（Level Ⅳ）B	2	32	2	Compulsory
	I070109	HSK（Level Ⅴ）A	2	32	3	Compulsory
	I070110	HSK（Level Ⅴ）B	2	32	4	Compulsory
	Credits Requirement		⩾10			
Basic Courses	A010202	Tax theory and policy	2	32	1	Compulsory
	A010210	Chinese tax system	3	48	1	Compulsory
	A010211	Theory and practice of financial accounting	2	32	1	Compulsory
	Credits Requirement		7 Credits			
Discipline Core Course	P010312	Tax assessment	2	32	2	Compulsory
	P010303	Tax administration	3	48	1	Compulsory
	P010313	Enterprise tax planning	2	32	2	Compulsory
	P010305	Senior tax accountant	2	32	2	Compulsory
	Credits Requirement		9 Credits			
Major Optional Course						
	P010309	International Taxation	2	32	1	Elective
	P010315	Tax inspection	2	32	2	Elective
	P010308	Tax risks and tax disputes	2	32	2	Elective
	P010314	Enterprise tax law	2	32	2	Elective
	P010311	Financial management and financial statement analysis	2	32	2	Elective
	P010412	Analysis and application of tax Big data	2	32	2	Elective
	P010411	Thesis Writing Guidance	2	32	2	Elective
	P010413	Digital Taxation	2	32	2	Elective
	A010207	Econometric Public Finance	2	32	2	Elective
	A010213	Frontier research in Public Economics	2	32	2	Elective
	Credits Requirement		⩾10 Credits			
Total Credits			⩾36 Credits			

(1) Description of remedial courses (applicable to undergraduate majoring in non-economic

and management)

Interdisciplinary graduate students must supplement two undergraduate major courses under the guidance of a tutor. The remedial courses are in the form of closed-book exams. Students who fail to meet the requirements need to retake the undergraduate courses with the same name. Students who take the undergraduate course examination and pass the examination can participate in the defense of graduation thesis. No credits.

(2) On the basis of completing the above-mentioned credits, graduate students can also take relevant courses offered by other colleges under the guidance of their tutors.

5. Teaching Language

Chinese

6. Practice Part

(1) Professional Practice (6 credits)

During the semester, students must ensure professional practice for no less than half a year, and can adopt the combination of centralized practice and segmented practice;Professional practice refers to working practice in government administrative departments such as accounting, tax firms, audit firms, state and local tax bureaus, enterprises and other tax related units.The professional practice time of fresh graduates shall not be less than 1 year.The assessment of professional practice adopts the credit system. Students' practice is generally arranged in the 2nd-3rd semester, and the cumulative workload shall not be less than 320 class hours (20 class hours per week, calculated as 16 weeks). After that, students are required to submit a practical learning plan and write a professional practice summary report.

(2) Innovative Practice (1 credit)

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

(3) Comprehensive literacy (2 credits)

Moral education: students participate in the "Mingde" series of lectures organized by the graduate school for three times as required;

Physical education: students participate in physical education courses of no less than 8 class hours organized by the physical education and art teaching department;

Aesthetic Education: students participate in art courses and art practice organized by the physical education and art teaching department for no less than 8 hours, or take other art courses for no less than 8 hours;

7. The Dissertation Related Work

Some works included in the master of Taxation program are research proposal, middle-term report, publication, plagiarism detection, blind-review, defense. More information could be found on the website of graduate school of Beijing Technology and Business university.

Master of Taxation Program Schedule

Project Milestone	Semester（2 Year）
Research proposal	2
Middle-term report	3
Publication	4
Plagiarism detection, blind-review, Defense	4
Compulsory course	The beginning of the fourth Semester

8. Course Syllabus

The content of the course syllabus includes the course code, course name, course hours, credits, learning outcomes, teaching methods, assessments, grading, applicable disciplines, prerequisites, course schedules and hours allocation, references, etc.

商学院

工商管理学博士留学研究生培养方案

授予学位类别：管理学博士学位

一级学科代码及名称：1202 工商管理学

制订单位：商学院

一、培养目标

培养品德优良、具备坚实宽厚的管理学理论基础和系统深入的专业知识，掌握现代管理学的前沿理论和研究方法，适应文化多样性，兼具中国情怀和国际化视野，能够将企业管理相关知识与全球发展趋势和中国发展模式相结合，胜任高水平教育、研究以及全球化企业管理工作的研究型人才。

二、学科简介与研究方向

（一）学科简介

北京工商大学工商管理学科已有60余年历史，源于中央商学院管理专业（1959年），自1960年开始招收本科生，1984年招收研究生，2002年工商管理获批原内贸部重点专业和北京市重点建设学科，经教育部批准2004年与中央财经大学联合培养博士生，2007年和2010年起开始培养MBA和MPAcc专业研究生，2013年获批北京市国有资产管理协同创新中心，2019年获批北京市首批高精尖学科，2021年获批工商管理一级学科博士授予权。目前学科拥有国家级一流专业建设点4个、北京市一流专业1个、北京市重点（建设）学科2个。

（二）学科专业与方向

1.会计学

本学科专业主要研究会计、内部控制、审计等基本理论及在资本市场中的作用。重点围绕会计信息对国有股东和资本市场其他股东的保护机制与效果开展研究。具体研究方向为：（1）会计与投资者保护；（2）审计与风险控制。

2.企业管理

本学科专业主要研究企业管理理论及在服务企业的应用和创新。重点围绕数字经济环境下服务企业特别是流通、科技、旅游服务企业的经营管理创新等开展研究。具体研究方向为：（1）战略与创新管理；（2）市场营销与服务管理；（3）组织与人力资源管理。

3.财务管理

本学科专业主要研究公司财务基本理论及在国资国企管理中的应用。重点围绕股东特别是国有股东在两权分离基础上形成的出资者财务行为和关系开展研究。具体研究方向为：（1）公司财务与国有资产管理；（2）公司治理与集团管控。

4.旅游管理

本学科专业主要研究旅游信息化以及大数据在旅游行业和企业中的应用。具体研究方向：旅游信息化与大数据管理。

5. 技术经济及管理

本学科方向主要研究物流和供应链管理理论及在现代企业管理中的应用，重点围绕城市物流、电商物流、智慧供应链与供应链金融等方面开展研究。具体研究方向为：（1）物流管理与智慧供应链；（2）供应链金融。

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。

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	≥2	必修环节	2
总学分	≥24 学分		

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	I010102	中国概况	2	32	1	必修
	I070111	汉语（一级）	4	64	1	必修
	I070112	汉语（二级）	4	64	2	必修
	I070113	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	DI010105	高级计量经济学	3	48	1	必修
	A040310	管理研究方法	4	64	1	选修
	DI010103	高级微观经济学	3	48	1-3	选修
	DI010104	高级宏观经济学	3	48	1-3	选修
	应修		≥6 学分			
专业课	D040107	企业管理研究专题（双语）	3	48	2	选修
	D040108	会计与审计研究专题（双语）	3	48	2	选修
		导师根据研究方向设定专题	2	32	2	选修
	应修		≥2 学分			
课程总学分要求			≥22 学分			

说明：

1. 汉语：若学生已通过汉语水平考试，可申请免修相应等级的汉语课程。

2. 博士留学研究生应在导师指导下选修课程。

五、授课语言

英文

六、必修环节（2 学分）

（一）学术活动（1 学分）

1. 文献综述报告（0.5 学分）

学院在第 4 学期统一组织开题答辩，博士研究生除了提交开题报告外，还必须单独提交一份针对论文选题领域的文献综述报告（不少于 1 万字）。开题答辩委员会成员应具备博士生导师资格，答辩委员会不得少于 5 人，其中至少 1 名校外专家，导师及博士生指导小组成员需要回避。每位博士生有 2 次开题答辩的机会，对于 2 次都不能通过的，原则上做退学处理。开题答辩通过后，可获得 0.5 学分。

2. 前沿讲座和博士论坛（0.5 学分）

第 7 学期结束前，博士研究生须参加 10 次及以上课题组或学院组织的学术研讨会，在学术研讨会上做至少 4 次报告，由学院审核通过后可获得 0.5 学分。

（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。专业实践包括教学实践、社会实践或社会调查，博士研究生须择其一完成相应专业实践报告，经导师签字审核后提交各专业统一组织评价，考核成绩合格即可获得 1 学分。

七、培养环节及学位论文

（一）科研成果要求

在学期间取得的创新性科研成果应满足下列条件之一：

1.以第一作者（导师为第一作者，本人为第二作者，视同第一作者）或通讯作者发表与学位论文相关的经济与商学 ESI 期刊论文或中文 A 类期刊学术论文 1 篇。

2.取得的创新性成果获得省部级管理部门采纳或肯定性批示（排名前 3）。

3.取得的创新性成果获得省部级以上科研奖励（带国徽章），且排名前 5。

4.取得的与上述 1-3 项相当水平的创新性成果，并获得学术委员会认定通过；或者取得重要创新性成果，并获得本学科 3 位以上权威专家认定。

（二）学位论文

博士研究生学位论文工作包括博士资格审核、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》《北京工商大学研究生学位论文文字重复率检测管理办法》《北京工商大学关于博

士、硕士学位授予工作实施细则》。

学位论文是博士生学术水平的集中体现，应在导师组指导下由博士研究生独立完成，必须是创新性研究成果，并具有较大的学术价值和应用价值。博士学位论文要求：

1.博士学位论文从开题到答辩不少于 2 年。

2.学位论文须符合《北京工商大学博士研究生学位论文管理办法》和《北京工商大学关于博士、硕士学位授予工作实施细则》的要求。

3.博士学位论文在送外审之前，需要先通过预答辩环节。

4.博士学位论文的外审评阅人为 5 名，其中，2 名评阅人由学院负责聘请校外的同行专家（须能参加答辩委员会）进行论文评阅，3 名评阅人由研究生院聘请校外相关学科的教授（或相当职称的专家）进行匿名评审。

（三）授予学位

修满规定学分，综合考试合格及以上，毕业论文经指导教师评阅通过，经外审专家审核后，评阅成绩合格的，准予毕业，并发放毕业证书；符合申请学位条件的，论文的评审和答辩按照《北京工商大学关于博士、硕士学位授予工作实施细则》及相关文件的要求执行，通过者可以获得管理学博士学位。

八、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、适用学科或专业学位（领域）、先修课程、主要教学内容和学时分配、参考文献等。

Doctoral Program for Business Administration

1.Brief Introduction

ThePhDPrograminBusinessAdministrationpreparescandidatesforresearchandteachingcareersa t leadingeducationalinstitutionsandforcareersrelatingtoglobalbusinessmanagementthatrequire advancedresearchoranalyticalcapabilities.Thisprogramplacesmajoremphasisonexcellentmoral characters,solidtheoreticalfoundationofbusinessmanagementandresearchtalentstowardbusiness managementforefront.Knowledgecreationanddiscoveryaretheheartofthisdoctoralprogram, especiallyknowledgeofbusinessmanagementcombinedbothglobalbusinesstrendsandChina's developmentmodel.Besides,graduatesshouldhaveadaptabilitytodiversifiedcultures,deep understandingtoChineseculture and global perspective.

2.Training Objectives

The International PhD Program in Business Administration atBTBU Business School prepares candidates for research and teaching careers at leading educational institutions and for careers where advanced research and analytical capabilities are required. This program places major emphasis on independent inquiry, on the development of competence in research methodology, and on the communication of research results. Knowledge creation and discovery are the heart of this doctoral program. Candidates learn to become researchers by doing research, with the support of and collaboration with distinguished experts in the field.

3.Research Orientation

1. Accounting
2. Enterprise Management
3. Financial Management
4. Tourism Management
5. Technology Economics and Management

4.Length of Schooling

The duration of doctoral studies is 4 years, with a maximum of 6 years.

5.Curriculumand Credits Requirements

Course Classification	Credits Requirement	Course Classification	Credits Requirement
Public Course	14	Basic Course	≥6
Discipline Core Course	≥2	Practice Part	2
Total Credits	≥24		

Course Type	Course Code	Course Name	Credits	Class Hours	Opening Terms	Compulsory orNot
Public Courses	I010102	China Overview	2	32	1	Yes
	I070111	Chinese（LevelI）	4	64	1	Yes
	I070112	Chinese（LevelII）	4	64	2	Yes
	I070113	Chinese（LevelIII）	4	64	3	Yes
	Required		14 credits			
Basic Courses	DI010105	Advanced Econometrics	3	48	1	Yes
	A040310	Management Research Methods	4	64	1	No
	DI010103	Advanced Microeconomics	3	48	1-3	No
	DI010104	Advanced Macroeconomics	3	48	1-3	No
	Required		a minimum of 6credits			
Discipline Core Courses	D040107	ResearchTopics in BusinessManagement (Bilingual)	3	48	2	No
	D040108	Research Topics in Accounting and Auditing (Bilingual)	3	48	2	No
		Topics set by the supervisor according to the research direction	2	32	2	No
	Required		a minimum of 2credits			
TotalCredits			a minimum of 22credits			

Instructions:

1. Chinese: If students have passed the Chinese Proficiency Test, they can apply for exemption from the corresponding level of Chinese courses.

2. Doctoral students should take courses under the guidance of their supervisors.

6. Teaching Language

English

7. Practice Part（2 credits）

1. Academic Activities (1 credit)

(1) Literature Review and Dissertation Proposal (0.5 credit)

The Dissertation Proposal Defense will be uniformly organized in Semester 4. Besides DissertationProposal Defense, students should submit a Literature Review on the dissertation topic (no less than 10000 words). The proposal defense committee should not be composed of less than 5 experts with the qualification of doctoral supervisor, and one of them should be an off-campus mentor. The supervisor and the tutor group should avoid attending. Each doctoral candidate has two opportunities to present theDissertation Proposal Defense, two failed will result in being

expelled from school by principle. 0.5 credit can be obtained after passing defense.

(2) Academic conferences (0.5 credit)

Before the end of Semester 7, doctoral candidates should participate in at least 10 academic conferences organized by research group or School of Economics, and make at least 4 presentations at the conferences. Upon approval of supervisor, 0.5 credit can be obtained.

2. Professional practice (1 credit)

The professional practice of international students should meet the professional requirements of each major. In addition, it should combine the career planning with the needs of international talent training. Professional practice includes teaching practice, social practice or social investigation. Doctoral studentsmust choose one of them to complete the corresponding professional practice report, which will be submitted to each discipline leader for unified evaluation after being signed and reviewed by their tutors. Pass the assessment can obtain 1 credit.

8. The Dissertation Related Work

1. Requirements for Scientific Research Achievements

The innovative scientific research achievements made during the study period shall fulfill one of the following conditions:

(1) Publish 1 paper related to the dissertation in ESI journals of Economics and Business or Chinese class A journals as the first author (when the student is the second author while the supervisor is the firstauthor, the student is treated as the first author.) or corresponding author.

(2) Achieve innovative results that are adopted or positively approved by theprovincial and ministerial level management departments, and ranked in the top 3.

(3) Receive scientific research awards above the provincial or ministerial level (stamped with the national emblem), and ranked in the top 5.

(4) Achieve innovative achievements at the same level as the above 1-3 items, and be recognized and adopted by the academic committee; Or achieve important innovative achievements and be recognized by more than 3 authoritative experts in the discipline.

2. Dissertation

The process of training international doctoral candidates includes opening defense, intermediateinspection, scientific research publication review, plagiarism check, anonymous review, and defense. Fordetailed requirements, please refer to the “Dissertation Norms for Doctoral Students in Beijing Technologyand Business University”, “Administrative Measures for Dissertation Text Repetition Rate Detection for Graduate Students of Beijing Technology and Business University”and “Implementation Rules on Conferring Doctor's and Master's Degrees in Beijing Technology and Business University”.

Doctoral dissertation is the concentrated reflection of the training quality and academic level ofdoctoral students, which should be independently completed by the doctoral candidates under the guidanceof their tutor panel. Besides, the dissertation should reveal the innovative academic

research result which isof academic or practical values.Requirements for dissertation are as follows:

(1) The dissertation process shall take a time span of at least 2 year from Dissertation Proposal Defense to Dissertation Defense.

(2) The dissertation must meet the requirements of “Dissertation Norms for Doctoral Students inBeijing Technology and Business University” and “Implementation Rules on Conferring Doctor's andMaster's Degrees in Beijing Technology and Business University”.

(3) The blind review can be carried out after the student passes the Pre-defense of dissertation.

(4) The dissertation should be blind reviewed by 5 experts, including 2 external experts (required toattend the defense academic committee) invited by School of Economics and 3 discipline-related externalprofessors (or equivalent experts) invited by Graduate School.

3. Degrees Conferment

The students who have completed the required academic credits, passed the Discipline ComprehensiveExamination, obtained the approval of the supervisor for the dissertation and met the other requirements forgraduation are allowed to graduate and obtain a diploma. According to the “Implementation Rules onConferring Doctor's and Master's Degrees in Beijing Technology and BusinessUniversity” and the related documents, those who meet the requirements for degree application willobtain a doctor’s degree in management after passing the blind review and dissertation defense.

9.Teaching syllabus

The course syllabus includes course code, course name, credit hours, credits, teaching objectives, teaching methods, assessment methods, applicable disciplines or professional degrees (fields), advanced courses, main teaching content and credit hours allocation, references, etc.

旅游管理博士留学研究生培养方案

授予学术类别：管理学博士学位

一级学科代码及名称：1202 工商管理学

二级学科代码及名称：120203 旅游管理

制定单位：商学院

一、培养目标

培养适应世界经济发展需要，培养适应世界经济发展需要，具备坚实宽厚的管理学理论基础和系统深入的专业知识，掌握工商管理学前沿理论和研究方法，熟悉本学科国际前沿和发展动态，具有独立从事高校教学、科学研究、相关领域的组织管理、高端咨询和社会服务能力的旅游管理专业人才。

二、学科简介与研究方向

学科简介

北京工商大学工商管理学科已有 60 余年历史，于 1960 年招收本科生、1984 年招收研究生、2003 年取得会计学博士研究生的联合培养权，取得旅游管理硕士研究生授予权。2007 年取得工商管理硕士（MBA）授予权。2010 年获得全国第一批“旅游管理硕士”专业学位授予权。是是北京市首批高精尖学科（2019 年与对外经贸大学共建），拥有国家级一流专业建设点 4 个，2021 年成功获批一级学科博士学位授权点。

北京工商大学工商管理学科 60 年来形成了企业管理与服务创新、公司财务与国有资产管理、会计与投资者保护、物流管理与智慧供应链、智慧旅游与大数据管理等 5 个特色方向。

智慧旅游与大数据管理研究方向

1. 旅游信息化与大数据应用

本学科方向主要研究信息技术、智能技术在旅游生产、消费、营销等方面的问题，特别是旅游大数据分析、旅游行为计算机仿真、旅游地理信息系统、遥感技术等的理论与应用。

具体研究方向为：（1）旅游大数据；（2）智慧旅游与游客仿真；（3）旅游地理信息学。

2. 旅游服务管理与创新

本学科方向主要研究服务型旅游企业的服务系统设计、服务设施设计、服务质量、服务接触、新零售服务、智慧服务、服务创新等问题。

具体研究方向为：（1）服务管理；（2）服务创新；（3）旅游接待业管理。

3. 旅游目的地管理与规划

主要研究旅游目的地、旅游资源的开发、规划、保护、以及旅游目的地与景区景点的经营管理等战略性问题，在低碳消费、可持续发展、利益相关者福祉等领域形成了鲜明特色。

具体研究方向为：（1）可持续旅游；（2）国家公园旅游；（3）遗产旅游；（4）旅游

景区管理。

4. 旅游品牌运营与文化创意

本学科方向主要研究旅游企业的品牌运营、文化创意的理论与应用，重点关注新媒体环境下的老字号品牌连锁经营与品牌形象建设、旅游场景中的文化创意与传统文化创新等方面内容，特别是在老字号品牌经营与文化创新研究领域形成了鲜明特色。

具体研究方向为：（1）旅游品牌管理；（2）跨文化传播；（3）新媒体营销。

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。

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	9
专业课	≥4	选修课	≥4
必修环节	2	总学分	≥33

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	I010102	中国概况	2	32	1	必修
	I070111	汉语（一级）	4	64	1	必修
	I070112	汉语（二级）	4	64	2	必修
	I070113	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	DI010103	高级微观经济学	3	48	1	必修
	DI010104	高级宏观经济学	3	48	2	必修
	DI010105	高级计量经济学	3	48	1	必修
	应修		9 学分			
专业课	DI010117	应用经济学文献研读（全英）	2	32	3	必修
	DI010110	现代金融学	2	32	2	四选一
	DI010111	宏观经济统计研究	2	32	2	
	DI010112	高级国际经济学	2	32	2	
	DI010101	国民经济管理专题	2	32	1	
	应修		≥4 学分			

选修课	PI170109	数字经济	2	32	1	四选二
	PI170102	国际贸易地理	2	32	1	
	DI170401	旅游大数据应用与实践	2	32	3	
	DI070402	遗产文化与旅游专题	2	32	2	
	应修		≥4 学分			
补修课	PI170206	生态旅游	/	32	2	
	A170407	旅游地理信息学	/	32	2	
课程总学分要求			≥31 学分			

说明：

1. 跨专业录取的研究生须在导师指导下补修相应学科硕士阶段主干课程，须参加课程考试且成绩合格，不计学分。

2. 学科综合考核：博士研究生第三学期课程学习结束，达到课程总学分要求后，应参加学院组织的学科综合考核。学科综合考试主要考查形式为预开题。考核成绩合格，方可申请博士研究生学位论文开题；逾期未考者，按不合格处理。

3. 考核方式：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。博士研究生课程考核分为考试和考查两种方式，必修课程一律闭卷考试，选修课程可采用考试或考查方式。博士研究生课程考核成绩按百分制评定，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。

4. 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。

5. 博士研究生在修满规定课程学分后方可进行论文开题。

五、授课语言

英文

六、必修环节（2 学分）

1.学术活动（1 学分）

分为文献综述报告（0.5 学分）与前沿讲座和博士论坛（0.5 学分）两个部分。

（1）文献综述报告（0.5 学分）

学院在第四学期统一组织开题答辩，博士研究生除了提交开题报告外，还必须单独提交一份针对论文选题领域的文献综述报告（不少于 1 万字）。开题答辩委员会成员应具备博士生导师资格，答辩委员会不得少于 5 人，其中至少一名校外专家，导师及博士生指导小组成员需要回避。每位博士生有两次开题答辩的机会，对于两次都不能通过的，原则上做退学处理。开题答辩通过后，可获得 0.5 学分。

（2）前沿讲座和博士论坛（0.5 学分）

第七学期结束前，博士研究生须参加 10 次及以上课题组或学院组织的学术研讨会，在

学术研讨会上做至少 4 次报告，由学院审核通过后可获得 0.5 学分。

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。专业实践包括教学实践、社会实践或社会调查，博士研究生须择其一完成相应专业实践报告，经导师签字审核后提交各专业统一组织评价，考核成绩合格即可获得 1 学分。各专业根据实际情况制定可考核标准。

七、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（试行）》。

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（试行）》。

1.学位论文

学位论文是博士生学术水平的集中体现，应在导师组指导下由博士研究生独立完成，必须是创新性研究成果，并具有较大的学术价值和应用价值。

（1）在校期间发表论文要求

博士学位申请人需公开发表 A1 类期刊 1 篇；或 A 类期刊 2 篇；或 CSSCI 收录期刊 3 篇，其中一篇为 A 类期刊；上述论文必须以北京工商大学为第一单位署名发表，导师与博士生合作发表文章时，导师为第一作者，博士生为第二者的，博士生视同第一作者。期刊分类以我校期刊分类为准。

（2）博士学位论文要求

① 博士学位论文从开题到答辩不少于 1 年；

② 学位论文必须符合《北京工商大学博士研究生学位论文管理办法》和《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（试行）》的要求；

③ 博士学位论文在送外审之前，需要先通过预答辩环节。

④ 博士学位论文的外审评阅人为 5 名，其中，2 名评阅人由学院负责聘请校外的同行专家（须能参加答辩委员会）对论文进行评阅，3 名评阅人由研究生院聘请校外与论文有关学科的教授(或相当职称的专家)进行匿名评审。

2.授予学位

修满规定学分，综合考试合格及以上，毕业论文经指导教师评阅通过，符合毕业的其他条件，准予毕业，并发放毕业证书；符合申请学位条件的，论文的评审和答辩按照《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（试行）》及相关文件的要求执行，通过者可以获得管理学博士学位。

八、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、适用学科或专业学位（领域）、先修课程、主要教学内容和学时分配、参考文献等。

PhD Program in Tourism Management

1.Training Target

We aim to cultivate professionals who meet the needs of world economic development, have a solid and generous theoretical basis of business management and in-depth professional knowledge. The professionals are able to master the cutting-edge theory and research methods of tourism management. They should also be familiar with the international frontiers and development strains of the discipline, and have the ability to independently engage in university teaching, scientific research, organization and management in related fields, high-end consulting and social service.

2.Overview of the Program

Introduction

The discipline of Business Administration in Beijing Technology and Business University (BTBU) has a history of more than 60 years, where the undergraduate students began to be recruited in 1960, and the postgraduate students began to be recruited in 1984. In 2003, the discipline of Business Administration in BTBU obtained the right to grant theAcademic Master of Tourism Management. It was listed in China's first batch of authorization units entitled to grant the Practical Master of Tourism Management. The discipline of Business Administration in BTBU were approved as the key discipline in Beijing in 2019. The discipline of Business Administration in BTBU was entitled to grant the doctor's degree in 2021.

Research Orientation

(1)Tourism Informatization and Big Data Application

This research direction focuses on the theory and the application of information technology and intelligent technology in tourism production, consumption and marketing. In particular, it involves the theory and application of tourism big bata analysis, tourism behavior computer simulation, tourism geographic information system, remote sensing technology, etc.

Specific Research Directions:

1)Tourism Big Data; 2) Intelligent Tourism and Tourist Simulation; 3) Tourism Geoinformatics.

(2)Tourism Service Management and Innovation

This research direction focuses on the service system design, service facility design, service quality, service innovation and other issues of service-oriented tourism enterprises.

Specific Research Directions:

1)Service Management; 2) Service Innovation; 3) Tourism Hospitality Industry Management.

(3)Tourism Destination Management and Planning

This research direction focuses on the development, planning, protection and management of tourist destinations and tourism resources. It has formed a distinctive feature in the fields of

low-carbon consumption, sustainable development and stakeholder well-being.

Specific Research Directions:

1)Sustainable Tourism; 2) National Park Ecotourism; 3) Heritage Tourism; 4) Management of Tourist Attraction.

(4)Tourism Brand Operation and Cultural Creativity

This research direction focuses on the brand operation of tourism enterprise, the theory and application of cultural creativity.

Specific Research Directions:

1)Tourism Brand Management; 2)The Cross Culture Communication; 3)New Media Marketing.

3. Length of Schooling

The duration is generally 4 years, which should not be longer than 6 years (including suspension).

4. Curriculum and Credits Requirements

Course Classification	Credits Requirement	Course Classification	Credits Requirement
Public Course	14	Basic Courses	9
Discipline Core Course	≥4	Major Optional Course	≥4
Practice Part	2	Total Credits	≥33

Course Classification	Course Code	Course Name	Credits	Course Hours	Semester	Compulsory/Optional
Public Course	I010102	Chinese Culture	2	32	1	Compulsory
	I070111	HSK（Level Ⅰ）	4	64	1	Compulsory
	I070112	HSK（Level Ⅱ）	4	64	2	Compulsory
	I070113	HSK（Level Ⅲ）	4	64	3	Compulsory
	Credits Requirement		14 Credits			
Basic Courses	I010103	Advanced Microeconomics	3	48	1	Compulsory
	I010104	Advanced Macroeconomics	3	48	2	Compulsory
	I010105	Advanced Econometrics	3	48	1	Compulsory
	Credits Requirement		9 Credits			

Discipline Core Course	DI010117	Literature Review of Applied Economics	2	32	3	Compulsory
	DI010110	Modern Finance	2	32	2	Optional(select at least 1 course among 4)
	DI010111	Statistical Analysis of Macroeconomy	2	32	2	
	DI010112	Advanced International Economics	2	32	2	
	DI010101	National Economic Management	2	32	1	
	Credits Requirement		≥4 Credits			
Major Optional Course	PI170109	Digital Economy	2	32	1	Optional(select at least 2 course among 4
	PI170102	Geography of International Trade	2	32	1	
	DI170401	Application and Practice of Tourism Big Data	2	32	3	
	DI070402	Seminar on Heritage Culture and Tourism	2	32	2	
	Credits Requirement		≥4 Credits			
Complementary Course	PI170206	Ecotourism	/	32	2	
	A170407	Tourism Geoinformatics	/	32	2	
Total Credits			≥31 Credits			

Notes:

1. Students whose major is not in tourism management during their undergraduate or postgraduate studies, should take the complementary courses of the corresponding master courses under the guidance of the supervisor. Students are required to attend and pass the non-credit examination.

2. Discipline Comprehensive Assessment. After Semester 3 upon the completion of all courses and meet the total credit requirements, doctoral students should participate in the Discipline Comprehensive Examination organized by School of International Economics and Management. The form of discipline comprehensive examination is mainly dissertation

per-defense. PhD candidates can apply for the dissertation defense only after they pass the examination. Absence from the examination will be considered as unqualified.

3. Assessment Methods: All courses and compulsory tasks in the Training Program need to be evaluated, and credits can be obtained only after the students passing the assessment. The assessment of doctoral courses is divided into two types: examinations and inspections. All compulsory courses should be taken through the closed-book examinations, and the elective courses can be taken by either examinations or inspections. The hundred-mark system is applied in final result of doctoral courses, with at least a score of 70 to pass the compulsory courses and 60 to pass the elective courses.

4. There is no make-up exam for compulsory courses and students who fail to pass the examinations should apply for retaking the courses with the next grade. Students who fail to pass the elective course examinations can apply for retaking the course with the next grade or choose other elective courses instead upon consent of their supervisor.

5. Only after completing the required course credits can doctoral candidates attend the Interim Dissertation Defense.

5. Teaching Language

English

6. Practice Part（2 credits）

(1) Academic Activities (1 credit)

It includes Literature Review and Dissertation Proposal (0.5 credit) and academic conferences (0.5 credit).

Literature Review and Dissertation Proposal (0.5 credit)

The Dissertation Proposal Defense will be uniformly organized in Semester 4. Besides Dissertation Proposal Defense, students should submit a Literature Review on the dissertation topic (no less than 10000 words). The proposal defense committee should not be composed of less than 5 experts with the qualification of doctoral supervisor, and one of them should be an off-campus mentor. The supervisor and the tutor group should avoid attending. Each doctoral candidate has two opportunities to present the Dissertation Proposal Defense, two failed will result in being expelled from school by principle. 0.5 credit can be obtained after passing defense.

Academic conferences (0.5 credit)

Before the end of Semester 7, doctoral candidates should participate in at least 10 academicconferences organized by research group or School of International Economics and Management, and make at least 4 presentations at the conferences. Upon approval of supervisor, 0.5 credit can be obtained.

(2) Professional practice (1 credit)

The professional practice of international students should meet the professional requirements of each major. In addition, it should combine the career planning with the needs of international

talent training. Professional practice includes teaching practice, social practice or social investigation. Doctoral students must choose one of them to complete the corresponding professional practice report, which will be submitted to each discipline leader for unified evaluation after being signed and reviewed by their tutors. Pass the assessment can obtain 1 credit. Each discipline shall formulate assessment standards according to the actual situation.

7. The Dissertation Related Work

The process of training international doctoral candidates includes opening defense, intermediate inspection, scientific research publication review, plagiarism check, anonymous review, and defense. For detailed requirements, please refer to the "Dissertation Norms for Doctoral Students in Beijing Technology and Business University" and the "Implementation Rules on Conferring Doctor's and Master's Degrees for International Students in Beijing Technology and Business University (Trial)".

Dissertation

Doctoral dissertation is a concentrated reflection of the training quality and academic level of doctoral students, which should be independently completed by the doctoral candidates under the guidance of their tutor panel. Besides, the dissertation should reveal the innovative academic research result which is of academic or practical value.

1. Requirements for Paper Publication

Doctoral candidates are required to publish 1 paper on the A1 journals, or publish 2 papers on the A journals, or publish 3 papers on the CSSCI indexed journals (containing at least 1 A journal). All research achievements are required to be published under the name of Beijing Technology and Business University as the first unit. If the articles are published by the co-authors of both the supervisor and the student, when the student is the second author while the supervisor is the first author, the doctoral student is treated as the first author. The journal classification is subject to the journal classification regulation of BTBU.

2. Requirements for Dissertation.

(1) The dissertation process shall take a time span of at least 1 year from Dissertation Proposal Defense to Dissertation Defense.

(2) The dissertation must meet the requirements of the "Dissertation Norms for Doctoral Students in Beijing Technology and Business University" and the "Implementation Rules on Conferring Doctor's and Master's Degrees for International Students in Beijing Technology and Business University (Trial)".

(3) The blind review can be carried out after the student passes the Pre-defense of dissertation.

(4) The dissertation should be blind reviewed by 5 experts, including 2 external experts (required to attend the defense academic committee) invited by School of International Economics and Management and 3 discipline-related external professors (or equivalent experts) invited by

Graduate School.

Degrees Conferment

The students who have completed the required academic credits, passed the Discipline Comprehensive Examination, obtained the approval of the supervisor for the dissertation and met the other requirements for graduation are allowed to graduate and obtain a diploma. According to the“Implementation Rules on Conferring Doctor's and Master's Degrees for International Students in Beijing Technology and Business University (Trial)”and the related documents, those who meet the requirements for degree application will obtain a doctor’s degree in Management after passing the blind review and dissertation defense.

8. Course Syllabus

旅游管理硕士留学研究生培养方案

授予学位类别：管理学

一级学科代码及名称：1202 工商管理学

二级学科代码及名称：120203 旅游管理

制订单位：商学院

一、培养目标

旅游管理专业来华留学硕士研究生应当具有高尚的道德品质与文化素养，具备良好的法治观念和道德意识，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。

旅游管理专业培养具有社会责任感、创业创新能力和旅游职业素养、具备国际化视野和战略思维能力、掌握旅游市场、旅游文化、旅游开发、旅游服务等基本知识和行业发展趋势，能够胜任现代国际旅游业与相关行业实际工作的高层次、应用型专门人才。

二、学科简介与研究方向

根据国务院学位委员会关于旅游管理硕士专业学位研究生培养方案的要求，结合北京工商大学国际经管学院旅游管理专业的特色与优势，设置以下 4 个培养研究方向：

1．旅游信息化与大数据应用

该方向以旅游行业、管理部门和旅游企业为研究对象，以信息科学、数据科学、管理科学的理论、方法为指导，研究信息技术与大数据如何应用于旅游生产、消费、营销、服务、管理等问题，重点关注在线旅游服务与运营、智慧旅游建设与可持续发展、虚拟旅游创新与设计等。

2．旅游服务管理与创新

该方向以服务型旅游企业（特别是旅游企业集团、酒店集团管理公司和餐饮连锁公司）为研究对象，以管理学、市场营销学、服务管理学、集团化经营和连锁经营的理论、方法为指导，主要研究服务系统设计、服务设施设计、服务接触、服务质量、线上线下（O2O）服务、服务创新、集团化发展模式、多品牌管理、国际化、旅游供应链整合、特许关系管理等问题。

3．旅游目的地管理与规划

该方向以旅游资源、旅游目的地及景区（特别是国家公园、自然保护区、自然公园等）为研究对象，运用规划学、生态学、社会学、地理学、文化学、管理学和营销学等理论和方法，主要研究旅游资源的开发、规划、保护、低碳消费、可持续发展、利益相关者福祉，以及旅游目的地与景区景点的经营管理等问题。

4．旅游品牌运营与文化创意

该方向以旅游企业和旅游产品为研究对象，运用文化学、品牌学、管理学、营销学、社

会学等理论和方法，主要研究旅游企业的品牌运营、文化创意的理论与应用，重点关注新媒体环境下的老字号品牌运营与品牌形象建设、旅游场景中的文化创意与传统文化创新等方面内容。

三、学制和学习年限

国际旅游管理专业来华留学硕士研究生学制 2 年，学习年限最长不得超过 4 年。不得申请提前毕业。

四、课程设置与学分要求

1.课程设置

国际旅游管理专业来华留学硕士研究生所修课程分必修课和选修课，课程总学分不得少于 52 学分。学分组成为：必修课程共计 42 学分，其中公共基础课程 22 学分，学科基础课程 8 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不少于 10 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 2 学分。

2.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。

国际旅游管理专业来华留学硕士研究生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。

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	8
专业课	12	选修课	≥10
必修环节	2	总学分	≥46
学分说明	总学分 = 课程总学分 + 必修环节学分		

表 2 留学研究生课程设置及学分要求（英文授课方式）

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	I010102	中国概况	2	32	1	必修
	I070111	汉语（一级）	4	64	1	必修
	I070112	汉语（二级）	4	64	2	必修
	I070113	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	PI170401	旅游管理前沿问题	3	48	1	必修
	PI170202	旅游英语	3	48	2	必修
	PI170402	旅游产业经济分析	2	32	1	必修
	应修		8 学分			
专业课	PI170206	生态旅游	2	32	2	必修
	PI170203	旅游营销	2	32	2	必修
	PI170403	旅游规划与战略管理	2	32	1	必修
	PI170404	财务报表分析	2	32	2	必修
	A170401	服务管理	2	32	1	必修
	PI170405	旅游信息系统	2	32	2	必修
	应修		12 学分			
选修课	PI170406	旅游地理信息学	2	32	2	选修
	PI170407	旅游景区管理	2	32	2	选修
	PI170408	旅游消费者行为	2	32	2	选修
	PI170409	旅游接待业管理	2	32	2	选修
	PI170205	旅行社管理	2	32	2	选修
	PI170410	旅游企业集团化与连锁经营	2	32	2	选修
	PI170201	遗产文化与旅游	2	32	2	选修
	PI170411	餐旅管理与饮食文化	2	32	3	选修
	PI170204	智慧旅游	2	32	2	选修
	PI170412	旅游大数据应用与实践	2	32	3	选修
	PI170413	旅游文创设计	2	32	3	选修
	应修		≥10			
课程总学分要求			≥44 学分			

说明：具体要求参照同学历层次国内生相应要求。

五、授课语言

英文

六、必修环节（2 学分）

1.学术活动（1 学分）

国际旅游管理专业来华留学硕士研究生修学期间参加校内举办的行业前沿讲座 5 场以上，或参加学科竞赛 1 次以上，经导师审核认定完成创新实践活动。

2.专业实践（1 学分）

国际旅游管理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。专业实践的形式和时间由导师决定，实践结束提供相关证明和接受单位鉴定，撰写实践学习总结报告。

七、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（试行）》。

八、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、适用学科或专业学位（领域）、先修课程、主要教学内容和学时分配、参考文献等。

Master of Tourism Management Program

1. Training Target

Postgraduate students majoring in tourism management should have noble moral quality and cultural literacy, have good legal concept and moral awareness, be familiar with China's national conditions and cultural basic knowledge such as Chinese history, geography, society and economy, understand China's political system and foreign policy, and understand China's mainstream social values and public morality.

The major of Tourism Management cultivates high-level and applied professionals who have a sense of social responsibility, entrepreneurial and innovative ability, tourism professional quality, international vision and strategic thinking ability, master the basic knowledge and industry development trend of tourism market, tourism culture, tourism development and tourism service, and are competent for the actual work of modern international tourism and related industries.

2.Subject Introduction and Research Direction

According to the requirements of the Academic Degrees Committee of the State Council on the training program for postgraduates majoring in master of tourism management, combined with the characteristics and advantages of the school of international economics and management of Beijing University of technology and industry, the following four training and research directions are set up:

(1) Tourism Informatization and Big Data Application

Taking the tourism industry, management departments and tourism enterprises as the research object and guided by the theories and methods of information science, data science and management science, this direction studies how information technology and big data are applied to tourism production, consumption, marketing, service and management, focusing on online tourism service and operation, smart Tourism construction and sustainable development, virtual tourism innovation and design, etc.

(2) Tourism Service Management and Innovation

Taking service-oriented tourism enterprises (especially tourism enterprise groups, hotel group management companies and catering chain companies) as the research object and guided by the theories and methods of management, marketing, service management, group operation and chain operation, this direction mainly studies service system design, service facility design, service contact, service quality, online and offline (o2o) services, service innovation, group development mode Multi brand management, internationalization, tourism supply chain integration, franchise relationship management and so on.

(3) Tourism Destination Management and Planning

Taking tourism resources, tourism destinations and scenic spots (especially national parks,

nature reserves, nature parks, etc.) as the research object, this direction mainly studies the development, planning, protection, low-carbon consumption, sustainable development and stakeholder well-being of tourism resources by using the theories and methods of planning, ecology, sociology, geography, culture, management and marketing, And the management of tourist destinations and scenic spots.

(4) Tourism Brand Operation and Cultural Creativity

This direction takes tourism enterprises and tourism products as the research object, and uses the theories and methods of culture, brand, management, marketing and sociology to mainly study the theory and application of brand operation and cultural creativity of tourism enterprises, focusing on the old brand operation and brand image construction under the new media environment, cultural creativity and traditional cultural innovation in tourism scenes.

2. Length of Schooling

The length of study for master's degree students majoring in international tourism management in China is 2 years, and the maximum length of study shall not exceed 4 years. Do not apply for early graduation.

3. Curriculum and Credits Requirements

(1) Curriculum

The courses of international tourism management postgraduate students studying in China are divided into compulsory courses and elective courses, and the total credits of the course shall not be less than 52 credits. Learning grouping: 42 credits in total for compulsory courses, including 22 credits for public basic courses, 8 credits for discipline basic courses, 12 credits for professional courses, and no less than 10 credits for elective courses listed in the teaching plan under the guidance of tutors.

On the basis of completing the above specified credits, graduate students can also take postgraduate courses offered by other colleges in the University under the guidance of their tutors.

While completing the course, you also need to obtain 2 credits for compulsory links.

(2) Course Assessment

All courses and compulsory links in the training plan shall be assessed, and credits can be obtained only after passing the assessment. Postgraduate course assessment is divided into examination and examination. All degree courses selected by students are subject to closed book examination, and non degree courses can be subject to examination or examination.

The examination results of postgraduate courses are evaluated according to the 100 point system, and 60 points are qualified. The assessment results of the course are composed of usual results and final results, and the usual results account for 30% - 50% of the total results. The usual grades can be carried out by means of course papers, usual tests, reading reports, homework

grades, classroom discussions, etc.

If you fail to pass the compulsory course examination, you must apply for re examination with the next grade, and no make-up examination will be conducted separately; If the elective course is unqualified, it is allowed to take the test again with the next grade or change the course with the consent of the tutor.

Credits can be obtained for courses that pass the re study or re examination. Those who fail to pass the re study or re examination cannot participate in the defense of dissertation. After completing the required course credits, graduate students must participate in the mid-term examination of the course, and can participate in the defense of their dissertations only after passing the examination.

Upon graduation, the Chinese ability of master students majoring in international tourism management studying in China shall at least reach the level 3 of the international Chinese ability standard.

Table 1 Description of Postgraduate Course Category and Composition

Course Classification	**CreditRequirements**	**CourseClassification**	**Credit Requirements**
Public Course	14	Basic Course	8
Professional Course	12	Optional Course	≥10
Practice	2	Total Credits	≥46
Note	Total credits = Course credits + Practice credits		

Table 2.Curriculum and Credit Requirements for International Graduate Students

Course Classification	**Course Code**	**Course Name**	**Credits**	**Course Hours**	**Semester**	**Compulsory / Optional**
Public Course	I010102	Chinese Culture	2	32	1	Compulsory
	I070111	Chinese (Level 1)	4	64	1	Compulsory
	I070112	Chinese (Level 2)	4	64	2	Compulsory
	I070113	Chinese (Level 3)	4	64	3	Compulsory
	Credits Requirement		14 Credits			
Basic Course	PI170401	Frontier Issues of Tourism Management	3	48	1	Compulsory
	PI170202	Tourism English	3	48	2	Compulsory
	PI170402	Economic Analysis of Tourism Industry	2	32	1	Compulsory
	Credits Requirement		8Credits			

Professional Course	PI170206	Ectourism	2	32	2	Compulsory
	PI170203	Tourism Marketing	2	32	2	Compulsory
	PI170403	Tourism Planning and Strategic Management	2	32	1	Compulsory
	PI170404	Analysis of Financial Statements	2	32	2	Compulsory
	A170401	Service Management	2	32	1	Compulsory
	PI170405	Tourism Information System	2	32	2	Compulsory
	Credits Requirement		12Credits			
Optionl Course	PI170406	Tourism Geomatics	2	32	2	Optional
	PI170407	Scenic Spot Management	2	32	2	Optional
	PI170408	Tourism Consumer Behavior	2	32	2	Optional
	PI170409	Tourism Reception Management	2	32	2	Optional
	PI170205	Travel Agency Management	2	32	2	Optional
	PI170410	Tourism Conglomeration and Chain Operation	2	32	2	Optional
	PI170201	Heritage Culture and Tourism	2	32	2	Optional
	PI170411	Catering Management and Catering Culture	2	32	3	Optional
	PI170204	Smart Tourism	2	32	2	Optional
	PI170412	Application and Practice of Tourism Big Data	2	32	3	Optional
	PI170413	Tourism Cultural and Creative Design	2	32	3	Optional
	Credits Requirement		⩾10Credits			
Total Credits			⩾44 Credits			

Note: The detailed requirements refer to the corresponding requirements of domestic students at the same educational level.

4. Teaching Language

English

5. Practice Part

(1) Academic Activities (1 credit)

During the study period, international tourism management postgraduate students studying in China participated in more than 5 industry cutting-edge lectures held by the University, or participated in discipline competitions for more than 1 time, and completed innovative practical activities after being reviewed and approved by their tutors.

(2) Professional Practice (1 credit)

Graduate students majoring in international tourism management studying in China should work with their tutors to formulate and fill in the professional practice plan for full-time professional degree graduate students of Beijing Business University and submit the practical learning plan. Graduate students complete professional practice or subject research under the guidance of their tutors. The form and time of professional practice are decided by the tutor. After the practice, relevant certificates and the appraisal of the accepting unit are provided, and the summary report of practical learning is written.

7.The Dissertation Related Work

Relevant links and dissertation work in the process of training international graduate students include opening defense, mid-term inspection, review of scientific research achievements, detection of text repetition rate of papers, anonymous review and defense. For specific requirements, see the administrative measures for doctoral dissertations of Beijing University of technology and industry and the detailed rules for the awarding of doctoral and master's degrees of Beijing University of technology and industry in China (for Trial Implementation).

8.Course Syllabus

The curriculum syllabus includes curriculum code, curriculum name, class hours, credits, teaching objectives, teaching methods, assessment methods, applicable disciplines or professional degrees (fields), prerequisite courses, main teaching contents, class hour allocation, references, etc.

国际工商管理硕士留学研究生培养方案

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

掌握工商管理学基本原理，培养具有国际视野和新兴产业适应力及主导力的社会管理者、商界领袖、创业创新领域的开拓者以及为特定行业专门培养的专业人才。

二、学科简介与研究方向

本学科 MBA 项目设有财务与会计、金融与期货、运营与供应链管理等三个基本培养方向，涉及现代领导力、金融分析师（CFA）、注册会计师（CPA）、现代制造业、高新技术产业、现代零售业、现代服务业、投融资平台企业及现代农业等九个专业子方向，经典专业的稳定性和专业发展的前沿性充分结合，为学员提供了广泛的选择空间。

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。

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	专业课	30
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 56 学分。		

表 1 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	I010102	中国概况	2	32	1	必修
	I070111	汉语（一级）	4	64	1	必修
	I070112	汉语（二级）	4	64	2	必修
	I070113	汉语（三级）	4	64	3	必修
	应修		14 学分			
专业课	IM0001	管理学	2	32	1	必修
	IM0002	会计学	2	32	1	必修

	IM0003	公司财务	2	32	1	必修
	IM0004	人力资源管理	2	32	1	必修
	IM0005	市场营销学	2	32	2	必修
	IM0006	生产运作管理	2	32	2	必修
	IM0007	战略管理	2	32	2	必修
	IM0008	组织行为学与领导力	2	32	2	必修
	IM0009	管理会计控制	2	32	2	必修
	IM0010	物流与供应链管理	2	32	2	必修
	IM0011	商业和经济研究中的统计方法	2	32	2	必修
	IM0012	硕士论文	8	128	4	必修
	应修		30 学分			
课程总学分要求			≥44 学分			

五、授课语言

英文

六、必修环节（4 学分）

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。

七、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。

1.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。

2.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。

3.学位论文中期检查

学位论文中期检查应在第四学期完成。

4.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，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》。

5.学位论文如用英文撰写，必须要有中文摘要。

6.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》。

八、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。

Postgraduate Training Program of International Master of Business Administration (IMBA) of Business School

1. Training Target

Students should grasp the basic principles of business administration. We cultivate social leaders, business leaders, pioneers of entrepreneurship and innovation, and professionals trained for specific industries.

2. Subject introduction and Research direction

The MBA program has three basic training directions: finance and accounting, finance and futures, operation and supply chain management, involving nine professional sub-directions, including modern leadership, financial analyst (CFA), certified public accountant (CPA), modern manufacturing, high-tech industry, modern retail, modern service industry, investment and financing platform enterprises and modern agriculture. The content of classic majors and the cutting edge of this field are fully combined, which provides students with a wide choice space.

3.Length of Schooling

A full - time study is adopted and the academic system is 2 years.The longest study period is no more than 4 years.

4.Curriculumand Credits Requirements

Table 1 Description of total credits

Course Classification	Credits Requirement	Course Classification	Credits Requirement
Public Course	14	Discipline Core Course	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 Name	Credits	Course Hours	Semester	Compulsory/ Optional
Public Course	I010102	Chinese Culture	2	32	1	Compulsory
	I070111	HSK（Level Ⅰ）	4	64	1	Compulsory
	I070112	HSK（Level Ⅱ）	4	64	2	Compulsory

	I070113	HSK（Level Ⅲ）	4	64	3	Compulsory
	Credits Requirement		14Credits			
Discipline Core Course	IM0001	Management	2	32	1	Compulsory
	IM0002	Accounting	2	32	1	Compulsory
	IM0003	Corporate Finance	2	32	1	Compulsory
	IM0004	Human Resource Management	2	32	1	Compulsory
	IM0005	Marketing Management	2	32	2	Compulsory
	IM0006	Operation and Production Management	2	32	2	Compulsory
	IM0007	Strategic Management	2	32	2	Compulsory
	IM0008	Organizational Behavior and Leadership	2	32	2	Compulsory
	IM0009	Managerial Accounting Controls	2	32	2	Compulsory
	IM0010	Logistics and Supply Chain Management	2	32	2	Compulsory
	IM0011	Statistical Methods Used in Business and Economic Research	2	32	2	Compulsory
	IM0012	Master Thesis	8	128	4	Compulsory
	Credits Requirement		30 Credits			
Total Credits			⩾44 Credits			

5. Teaching Language

English

6. Compulsory Part

There is a compulsory professional practice with 4 credit points.This professional practiceis arranged in the third semester guided by asupervisor. 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.

7. The Dissertation Related Work

Degree thesis is the 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 base on the literature review and preliminary investigation and study. The research proposal should include the significance of the research, literature review, research plan and targetand 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".

8. Course 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.

工程管理（物流工程与管理）硕士留学研究生

培养方案

授予学位类别：工程管理

专业学位类别代码及名称：1256 工程管理

专业学位领域代码及名称：125604 物流工程与管理

制订单位：商学院

一、培养目标

培养熟悉和认同中国文化，拥有全球视野和跨文化沟通、管理、组织和协调能力，具备良好的职业道德，掌握系统完备的现代工程管理理论与方法和物流与供应链工程领域的专业技术和知识，能独立担负各类物流系统规划设计、模式创新、系统优化、运营管理、评价等工作，具有卓越领导力和宽广的国际视野的复合型高层次物流与供应链工程管理人才。

二、学科简介与研究方向

人工智能与大数据为核心驱动的智能商业时代正在加速到来，物流管理活动也在发生深刻而剧烈的变化，“互联网+高效物流”的提出，使得物流管理体系正在加速迈入互联网化、平台化和智能化发展。物流工程与管理专业面向新技术条件下高级物流工程管理人才的需求，适应的行业和工作岗位包括：生产性或服务性企业的物流规划与设计、企业物流的管理与运作、供应链管理；物流企业的经营与管理、物流解决方案设计、物流项目管理；现代物流产业发展规划、物流中心（配送中心）规划与设计；物流信息系统规划、设计、开发与维护，物流设施与设备的规划、设计、配置与运用，物流系统流程设计与优化等。

本领域主要研究方向为：

1. 智慧物流

本方向研究大数据驱动的现代物流信息系统和物流优化，依托农产品质量安全追溯技术及应用国家工程实验室，服务于京津冀一体化，在物联网+物流、大数据+农产品质量安全追溯等领域推进科技创新。

2. 供应链管理

本方向主要从事物流系统方法与理论、数字化供应链、供应链金融等方面的研究，重点围绕农产品与食品供应链管理问题，研究电子商务与传统物流体系的融合发展，从供应链视角研究生鲜农产品质量安全问题，农产品冷链物流风险评估等。

三、学制和学习年限

学制为 3 年，最长修业年限 5 年，不得申请提前毕业。

四、课程设置与学分要求

留学研究生毕业时中文能力应当达到《国际汉语能力标准》五级水平。若已通过汉语水平考试，可申请免修相应等级的汉语课程。

课程类别	学分要求	课程类别	学分要求
公共课	10	基础课	9
专业课	9	选修课	≥8
必修环节	2	总学分	≥38

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	I010102	中国概况	2	32	1	必修
	I070107	汉语（四级）上	2	32	1	必修
	I070108	汉语（四级）下	2	32	2	必修
	I070109	汉语（五级）上	2	32	3	必修
	I070110	汉语（五级）下	2	32	4	必修
	应修		10 学分			
基础课	P180205	高等运筹学	3	48	1	必修
	P180201	系统工程	2	32	1	必修
	P180202	工程信息管理	2	32	2	必修
	P180203	质量与可靠性管理	2	32	1	必修
	应修		9 学分			
专业课	P180204	工程系统建模与仿真	2	32	2	必修
	P180206	智慧物流	2	32	3	必修
	P180207	高等工程统计学	3	48	2	必修
	P180208	物流系统规划与优化	2	32	1	必修
	应修		9 学分			
选修课	P180209	边缘计算开发及其应用	2	32	2	选修
	P180211	深度学习及其应用	2	32	1	选修
	P180219	人工智能策略产品模型与方法	2	32	1	选修
	P180220	预测理论与方法	2	32	1	选修
	P180221	典型优化模型与算法	2	32	2	选修
	P180222	优化与博弈	2	32	2	选修
	A180212	物流运作管理	2	32	2	选修
	P180215	供应链金融与创新	2	32	2	选修
	P180216	智能物流装备与技术	2	32	3	选修
	P180217	跨境电商与物流管理	2	32	1	选修
	P180218	供应链管理	2	32	1	选修
	应修		≥8 学分			
课程总学分要求			≥36 学分			

五、授课语言

中文

六、必修环节（2 学分）

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。

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”。

七、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《北京工商大学专业学位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》。

八、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、适用学科或专业学位（领域）、先修课程、主要教学内容和学时分配、参考文献等。

Postgraduate Program ofLogistics Engineering and Management

1. Training Objectives

Persisting in the fundamental task of establishing morality and fostering people, our goal is to cultivate senior talents who are comprehensive in virtue, sports, beauty and labor. It is our mission to cultivate senior engineering management talents that master the basic theories and systematic professional knowledge of the development of this field, have the capability to apply quantitative methods and modern information technology to solve practical problems in the field of logistics engineering, have the professional ability to independently undertake logistics engineering planning and design, logistics system development and implementation, and logistics engineering operation and management, and possess high comprehensive quality, innovative and entrepreneurial spirit and professionalismcan. International students should be familiar with China's history, geography, society, economy and other basic knowledge of China's national conditions and culture. Also, international students should understand political system, national policy, mainstream social values and public morality of China, and form the concept of observing Chinese laws and disciplines.

2. Overview of the Program

The logistics engineering and management major is oriented to the needs of advanced logistics engineering management talents under new technical era. The career direction and employment of logistics engineering and management major includes logistics planning and design, enterprise logistics management and operation, supply chain management of production or service enterprises; operation and management, logistics solution design, logistics project management of enterprise logistics; modern logistics industry development planning, and logistics center (distribution center) planning and design; Logistics information system planning, design, development and maintenance, logistics facilities and equipment planning, design, configuration and application, logistics system process design and optimization, etc.

The main research field are as following：

1. Smart Logistics

This direction studies big data-driven modern logistics information systems and logistics optimization, which relies on agricultural product quality and safety traceability technology and application of the National Engineering Laboratory, serves the integration of Beijing-Tianjin-Hebei, and promotes technological innovation in the field of the “Internet of Things + logistics” and “big data + agricultural” product quality and safety traceability, etc.

2. Supply Chain Management

This direction is engaged in the research of logistics system methods and theories, smart

supply chain, supply chain finance, etc. It focuses on the management of agricultural products and food supply chain, and studies the integration and development of e-commerce and traditional logistics systems, fresh agricultural products quality and safety issues, agricultural cold chain logistics risk assessment from a supply chain perspective, etc.

3. Length of Schooling

The duration of program is 3 years, and the maximum duration of study is 5 years, and Advance graduation is allowed.

4. Curriculum and Credits Requirements

The Chinese curriculum is compulsory courses for international students. "The international master's and doctoral student applying curriculum based on Chinese environment should acquire HSK5 at graduation. The international master's and doctoral student applying curriculum based on Chinese environment should acquire HSK3 at graduation." The Chinese courses are set for beginners and intermediate learners separately. The class for beginners completes the teaching of HSK1 and HSK2, respectively, in spring and autumn. The class for intermediate learners sets the content according to the specific situation of students. For the first year, the Chinese courses are designated as 96 class hours and 6 credits each semester. In the second year, graduate students are supposed to achieve HSK3 in spring and autumn, with 64 class hours and 4 credits per semester. The student can apply for exemption from Chinese courses by providing the certifications to prove their Chinese lever.

Course Classification	Credits required	Course Classification	Credits required
Public Courses	10	Basic Courses	6
Professional courses	12	Optional course	⩾8
Compulsory courses	2	Total Credits	⩾38

Course Classification	Course Code	Course Name	Credit	Course Hours	Semester	Compulsory/ Optional
Public Courses	I010102	Chinese Culture	2	32	1	Compulsory
	I070107	HSK（Level Ⅳ）A	2	32	1	Compulsory
	I070108	HSK（Level Ⅳ）B	2	32	2	Compulsory
	I070109	HSK（Level Ⅴ）A	2	32	3	Compulsory
	I070110	HSK（Level Ⅴ）B	2	32	4	Compulsory
	Credits Requirement		10 Credits			
Basic Courses	P180201	Systems Engineering	2	32	1	Compulsory
	P180202	Engineering information management	2	32	2	Compulsory

	P180203	Quality and reliability management	2	32	1	Compulsory
	Credits Requirement		6 Credits			
Discipline Core Course	P180204	Modeling and Simulation of Engineering Systems	2	32	2	Compulsory
	P180205	Advanced Operations Research	3	48	1	Compulsory
	P180206	Intelligent Logistics	2	32	3	Compulsory
	P180207	Advanced Engineering Statistics	3	48	2	Compulsory
	P180208	Logistics System Programming and Optimization	2	32	1	Compulsory
	Credits Requirement		12 Credits			
Major Optional Course	P180209	Edge Computing Development and Applications	2	32	2	Optional
	P180210	Intelligent Traceability and Blockchain Technology	2	32	1	Optional
	P180211	Deep Learning and Applications	2	32	1	Optional
	P180212	Advanced Database Theory and Techniques	2	32	1	Optional
	P180213	Logistics Information Security Management	2	32	2	Optional
	P180214	Numerical optimization method	2	32	2	Optional
	A180212	Logistics Operation Management	2	16	3	Optional
	P180215	Supply Chain Finance and Innovation	2	32	2	Optional
	P180216	Intelligent Logistics Equipment and Technology	2	32	2	Optional
	P180217	Cross-border E-commerce and Logistics Management	2	32	1	Optional
	P180218	Supply Chain Management	2	32	1	Optional
	Credits Requirement		⩾8 Credits			
Total Credits			⩾36 Credits			

5. Teaching Language

Chinese

6. Practice Part

1. Academic activities (1 credit)

Academic activities include attending domestic and international academic conference, academic forum, academic report and giving oral presentation.

2. Professional practice (1 credit)

The practical learning of international students should meet the professional requirements and be combined with their career planning, which aims to meet the needs of international talent training.

7. Dissertation and Related Work

The dissertation process for international graduate students includes the thesis proposal, the mid-term inspection, the verification of scientific research achievements, the inspection of repetition rate of dissertation, the anonymous evaluation of dissertation, and the final defense. Please refer to the following documents for detailed requirements. <Administrative measures for dissertation of professional master's degree in Beijing technology and business university> 、< Guidelines for doctoral and master degree awarding of intonational student in Beijing technology and business university (for trial implementation)>.

8. Course Syllabus

The course syllabus includes course code, course title, class hours, credits, teaching objectives, teaching methods, assessment methods, applicable subjects, advanced courses, main teaching content and class hour assignment, references, etc.

轻工与食品学部

食品与健康学院

食品科学与工程博士留学研究生培养方案

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。

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：

1．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。

2．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。

3．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。

4．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。

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。

四、课程设置与学分要求

本专业所修总学分不得少于 33 学分，其中公共课 22 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	I010102	中国概况	2	32	1	必修
	I070111	汉语（一级）	4	64	1	必修
	I070112	汉语（二级）	4	64	2	必修
	I070113	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	DI020303	高级食品化学	2	32	1	必修
	应修		2 学分			
专业课	DI020304	风味化学原理与技术	2	32	1	必修
	DI020302	营养与营养化学	1	16	1	必修
	应修		3 学分			
选修课	DI020307	食品质量评价	2	32	1	选修
	DI020306	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				

五、授课语言

英语（汉语课程除外）。

六、必修环节（2 学分）

1.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。

2.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。

七、培养环节及学位论文

1. 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。

2. 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。

2.1 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。

2.2 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。

2.3 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。

3. 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。

3.1 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。

3.2 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》。

3.3 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》。

3.4 科研成果要求

全日制学术学位型博士研究生申请博士学位，在学期间（以入学时间为界，论文发表原则上以正式录用通知为准）须以第一作者身份或以第二作者（导师或副导师为第一作者）发表课题相关的学术论文或授权发明专利， 成果累计达到 4.0 分及以上（其中 C 级、D 级别论文积分之和应≤1.0 分）或满足高水平绿色通道要求。如共同第一作者论文成果，须由通讯作者和所有共同第一作者协商分配，并提供书面说明材料。学术论文、科研成果等须以北京工商大学为第一单位署名发表，与导师共同发表的学术论文原始稿件必须经过指导教师审核，投稿前必须由导师签字同意。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。

成果得分标准：

（1）发表 A1 级论文一篇计 4.0 分；

（2）发表 A2 级论文一篇计 3.0 分；

（3）发表 A3 级论文一篇或授权国际发明专利一项计 2.0 分；

（4）发表 B 级论一篇或国内发明专利一项计 1.5 分；

（5）发表 C 级论文一篇计 1.0 分；

（6）发表 D 级论文一篇计 0.8 分；

注：论文级别依据《北京工商大学自然科学类科研业绩认定办法》（北工商校发〔2024〕9 号）。

高水平绿色通道：

（1）在《Nature》《Science》《Cell》上发表课题相关的研究性学术论文 1 篇，排名不限；

（2）在《Nature》《Science》《Cell》的子刊、《Journal of the American Chemical Society》《Angewandte Chemie International Edition》《Plant Cell》《Proceedings of the National Academy of Sciences of the United States of America》或其他经学院一级学科博士点学位评定分委员会认定的高水平期刊上，以第一作者身份或以第二作者（导师或副导师为第一作者）发表课题相关的研究性论文 1 篇；

（3）以第一作者身份或以第二作者（导师或副导师为第一作者）发表课题相关的研究性论文成为 ESI 高被引或热点论文。

符合以上条件之一的，直接满足要求。

3.5 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》。

3.6 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。

八、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。

Doctoral Program for Food Science and Engineering

1.Training Target

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.

2.Overview of the Program

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.

3. Length of Schooling

4 years with the maximal extension of 2 years.

4. Curriculum and Credits Requirements

Course Classification	Course Code	Course Name	Credits	Course Hours	Semester	Compulsory/ Optional
Public Course	I010102	Introduction to China	2	32	1	Compulsory
	I070111	HSK（Level Ⅰ）	4	64	1	Compulsory
	I070112	HSK（Level Ⅱ）	4	64	2	Compulsory
	I070113	HSK（Level Ⅲ）	4	64	3	Compulsory
	Credits Requirement		14 Credits			
Basic Courses	I020303	Advanced Food Chemistry	2	32	1	Compulsory
	Credits Requirement		2 Credits			
Discipline Core Course	DI020304	Food Flavor Chemistry: Theory and Practice	2	32	1	Compulsory

	DI020302	Nutrition and Nutritional Chemistry	1	16	2	Compulsory
	Credits Requirement		3 Credits			
Major Optional Course	DI020307	Food Quality Evaluation	2	32	1	Optional
	DI020306	Food Microbiology and Technology: Theory and Practice	2	32	1	Optional
	Credits Requirement		⩾4 Credits			
Total Credits		⩾24 Credits				

5. Teaching Language

English

6. Practice Part

6.1 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.

6.2 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.

7. Research and Dissertation

7.1 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.

7.2 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.

7.3 Dissertation

7.3.1 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.

7.3.2 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.

7.3.3 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 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. 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.

7.3.4 Requirements for paper publication

Full-time academic degree-type doctoral students applying for doctoral degrees. During the period of study (In principle, the publication of a thesis is based on the official acceptance of the thesis, subject to the time of admission), the doctoral candidate is required to publish the academic papers or authorized invention patents related to the subject matter as the first author or the second author (with the supervisor or the associate supervisor as the first author), with a cumulative score of 4.0 points or above (of which the sum of the points for papers of Grade C and Grade D should be $\leqslant$1.0 point), or to meet the requirements of the high level green channels. Co-first author paper results must be released in accordance with an agreement between the corresponding author and all co-first authors, as well as written explanatory information. Academic papers and scientific research results must be published under the signature of Beijing Technology and Business University as the first unit. The original manuscripts of academic papers published together with the supervisor must be reviewed by the supervisor, and must be signed by the supervisor before submission. If the applicant has completed doctoral dissertation, but the academic paper has not been published formally, a Notification of Acceptance for this academic paper should be submitted. The applicants will receive their Doctoral Degree Certificate after the paper is formally published or other scientific research achievements that meet the above requirements.

Achievement score standard:

(1) 4.0 points for publishing one A1 paper;

(2) 3.0 points for publishing one A2 paper;

(3) 2.0 points for publishing one A3 paper or authorizing one international invention patent;

(4) 1.5 points for publishing one B paper or authorizing one domestic invention patent;

(5) 1.0 points for publishing one C paper;

(6) 0.8 points for publishing one D paper;

Note: The grade of the thesis is based on the Measures for the Recognition of Scientific

Research Performance in Natural Sciences of Beijing Technology and Business University (BTBU Development [2024] 9).

High-level green channels:

(1) One research paper published in 《Nature》, 《Science》or《Cell》related to the subject, regardless of rank.

(2) One research paper related to the subject published in the sub-journal of 《Nature》, 《Science》or 《Cell》, 《Journal of the American Chemical Society》,《Angewandte Chemie International Edition》, 《Plant Cell》, 《Proceedings of the National Academy of Sciences of the United States of America》, or other high-level journals as determined by the College's first-level doctoral degree evaluation sub-committee, as the first author or the second author (supervisor or vice supervisor as the first author).

(3) Research papers related to the subject published as the first author or second author (supervisor or associate supervisor as the first author) that gets recognized as a hot paper or ESI Highly Cited.

If one of the above conditions is met, the requirement is satisfied directly.

7.3.5 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 <The BTBU Regulation for Doctoral Dissertation >.

7.3.6 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.

8. Course Syllabus

Course Syllabi are attached elsewhere.

生物与医药（食品工程）硕士留学研究生培养方案

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。

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：

1. 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。

2. 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。

3. 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。

4. 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。

三、学制和学习年限

学制 3 年，学习年限最长不得超过 5 年。

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	3	选修课	≥4
必修环节	2	总学分	≥25
学分说明	攻读本专业学位的研究生所修总学分不得少于 34 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	I010102	中国概况	2	32	1	必修
	I070111	汉语（一级）	4	64	1	必修
	I070112	汉语（二级）	4	64	2	必修
	I070113	汉语（三级）	4	64	3	必修
		应修	14 学分			
基础课	DI020303	高级食品化学	2	32	1	必修
	应修		2 学分			
专业课	DI020304	食品风味化学原理与技术	2	32	1	必修
	D020104	营养与营养化学	1	16	1	必修
	应修		3 学分			
选修课	DI020306	食品微生物学与生物技术原理与实践	2	32	1	选修
	DI020307	食品质量评价	2	32	1	选修

	P020201	现代微生物与发酵工程	2	32	1	选修
	应修		≥4 学分			
课程总学分要求			≥23 学分			

说明：具体要求参照同学历层次国内生相应要求。

五、授课语言

英文

六、必修环节（2 学分）

1.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。

2.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。

七、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。

1.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》。

2.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》。

3.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》。

4.专业学位授予的成果要求

全日制专业硕士研究生申请硕士学位，在学期间（以入学时间为界，论文发表原则上以正式录用通知为准）须以第一作者身份或以第二作者（导师为第一作者）发表课题相关的学术论文或授权专利，成果累计达到 1.5 分及以上或满足高水平绿色通道。研究生所发表的学

术论文必须署名”北京工商大学”为第一单位，与导师共同发表的学术论文原始稿件必须经过指导教师审核，投稿前必须由导师签字同意。 若发表论文存在共同第一作者，将论文总分值平均分配给所有共同第一作者或由所有共同第一作者与通讯作者协商决定分配比例（需向学院提供书面说明材料）。

成果得分标准：

(1) 发表 B 级（含）以上论文一篇或授权国内外发明专利一项计 1.5 分；

(2) 发表 C 级论文一篇计 1.0 分；

(3) 完成与毕业研究相关的工程研究(开发)设计（经学术委员会认定）一项计 1.0 分；

(4) 参与制定与毕业研究相关的国家或行业标准一项计 1.0 分。

(5) 发表 D 级论文一篇计 0.8 分。

注：论文级别依据《北京工商大学自然科学类科研业绩认定办法》（北工商校发〔2024〕9 号）。

高水平绿色通道：

（1）在《Nature》《Science》《Cell》上发表课题相关的研究性学术论文 1 篇，排名不限；

（2）在《Nature》《Science》《Cell》的子刊、《Journal of the American Chemical Society》《Angewandte Chemie International Edition》《Plant Cell》《Proceedings of the National Academy of Sciences of the United States of America》或其他经学院一级学科博士点学位评定分委员会认定的高水平期刊上，以第一作者身份或以第二作者（导师或副导师为第一作者）发表课题相关的研究性论文 1 篇；

（3）以第一作者身份或以第二作者（导师或副导师为第一作者）发表课题相关的研究性论文成为 ESI 高被引或热点论文。

符合以上条件之一的，直接满足要求。

5.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》。

6.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》。

八、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。

Professional Master Degree Program of Food Engineering for International Students

1.Training Target

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.

2.Overview of the Program

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:

2.1 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.

2.2 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.

2.3 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.

2.4 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.

3. Length of Schooling

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.

4. Curriculum and Credits Requirements

Course Classification	Course Code	Course Name	Credits	Course Hours	Semester	Compulsory/ Optional
Public Course	I010102	Introduction to China	2	32	1	Compulsory
	I070111	HSK（Level Ⅰ）	4	64	1	Compulsory
	I070112	HSK（Level Ⅱ）	4	64	2	Compulsory
	I070113	HSK（Level Ⅲ）	4	64	3	Compulsory
	Credits Requirement		14Credits			
Basic Courses	DI020303	Advanced food chemistry	2	32	1	Compulsory
		Credits Requirement	2 Credits			
Discipline Core Course	I020304	Food flavor chemistry theory and technology	2	32	1	Compulsory
	D020104	Nutraceutical and Nutritional Chemistry	1	16	1	Compulsory
	Credits Requirement		3 Credits			
Major Optional Course	I020306	Principle and Practice of Food Microbiology and Biotechnology	2	32	1	Optional
	I020307	Agricultural products and food quality evaluation	2	32	2	Optional
	P020201	Modern microorganism and fermentation engineering	2	32	1	Optional
	Credits Requirement		⩾4 Credits			
Total Credits			⩾23 Credits			

5. Teaching Language

English

6. Practice Part

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.

7. The Dissertation Related Work

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

7.1 Thesis research initiation

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

7.2 Thesis mid-term examination

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

7.3 Thesis evaluation and defense

All international students have to defend their thesis.

7.4 Achievement requirements for Degree Award

Full-time professional master's degree students applying for master's degree, during the period of study (In principle, the publication of a thesis is based on the official acceptance of the thesis, subject to the time of admission), the candidate is required to publish the academic papers or authorized invention patents related to the subject matter as the first author or the second author (with the supervisor as the first author), with a cumulative score of 1.5 points or above, or to meet the requirements of the high level green channels. Academic papers published by postgraduate students must be signed “Beijing Technology and Business University” as the first unit. The original manuscripts of academic papers published together with the supervisor must be reviewed by the supervisor, and must be signed by the supervisor before submission. If there are co-first authors in the published paper, the total marks of the paper will be distributed to all co-first authors equally or the proportion of distribution will be decided by all co-first authors in consultation with the corresponding authors (written explanatory materials must be provided to the Faculty).

Achievement score standard:

(1) 1.5 points for publishing one B paper (or above) or authorizing one international invention patent;

(2) 1.0 points for publishing one C paper;

(3) 1.0 point for completing an engineering research (development) design that is connected to graduate research and is decided upon by the Academic Committee;

(4) 1.0 point for participation in the development of one national or industry standard related to graduate research;

(5) 0.8 point for publishing one D paper;

Note: The grade of the thesis is based on the Measures for the Recognition of Scientific Research Performance in Natural Sciences of Beijing Technology and Business University (BTBU Development [2024] 9).

High-level green channels:

(1) One research paper published in 《Nature》, 《Science》or《Cell》related to the subject, regardless of rank.

(2) One research paper related to the subject published in the sub-journal of《Nature》,《Science》or《Cell》, 《Journal of the American Chemical Society》,《Angewandte Chemie International Edition》, 《Plant Cell》,《Proceedings of the National Academy of Sciences of the United States of America》, or other high-level journals as determined by the College's first-level doctoral degree evaluation sub-committee, as the first author or the second author (supervisor or vice supervisor as the first author).

(3) Research papers related to the subject published as the first author or second author (supervisor or associate supervisor as the first author) that gets recognized as a hot paper or ESI Highly Cited.

If one of the above conditions is met, the requirement is satisfied directly.

7.5 Degree awarding Engineering master degree

7.6 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”.

轻工科学与工程学院

轻工技术与工程博士留学研究生培养方案

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。

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：

1. 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。

2. 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。

3. 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。

4. 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。

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。

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	I010102	中国概况	2	32	1	必修
	I070111	汉语（一级）	4	64	1	必修
	I070112	汉语（二级）	4	64	2	必修
	I070113	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	DI020303	高级食品化学	2	32	1	必修
	应修		2 学分			

专业课	DI020304	风味化学原理与技术	2	32	1	必修
	DI120103	表面活性剂化学	1	16	1	必修
	应修		3 学分			
选修课	DI120101	日用化学品前沿	2	32	1	选修
	DI120102	流体流动与输送机械	2	32	1	选修
	DI020306	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				

五、授课语言

英语（汉语课程除外）。

六、必修环节（2 学分）

1.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。

2.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。

七、培养环节及学位论文

1. 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。

2. 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。

2.1 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。

2.2 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。

2.3 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。

3. 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。

3.1 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。

3.2 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》。

3.3 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》。

3.4 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》。

博士研究生在学期间（以入学时间为界）必须以第一作者在国内外发表与学位论文相关的学术论文，论文积分之和应在 4.0 分或以上。根据《北京工商大学期刊分级要目》，以第一作者（或导师第 1，研究生第 2），发表 A1 论文为 2 分/篇，A2 论文为 1.5 分/篇，A3 论文或中国科学引文数据库（CSCD）收录期刊论文为 1 分/篇。共同第一作者论文成果，需由通讯作者和所有共同第一作者协商分配，并提供书面说明材料。博士研究生在学期间获得的排名第 1（或导师第 1，研究生第 2）的授权国际专利 2 分/项。如博士研究生在学期间（以入学时间为界）以第一作者（或导师第一作者，研究生为第二作者）发表 Nature，Science，Cell 研究论文 1 篇，直接满足发表论文要求。

上述学术论文、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。

3.5 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》。

3.6 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。

八、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。

Doctoral Program for Light IndustryTechnology and Engineering

1.Training Target

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.

2.Overview of the Program

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.

3. Length of Schooling

4 years with the maximal extension of 2 years.

4. Curriculum and Credits Requirements

Course Classification	Course Code	Course Name	Credits	Course Hours	Semester	Compulsory/ Optional
Public Course	I010102	Introduction to China	2	32	1	Compulsory
	I070111	HSK（Level Ⅰ）	4	64	1	Compulsory
	I070112	HSK（Level Ⅱ）	4	64	2	Compulsory
	I070113	HSK（Level Ⅲ）	4	64	3	Compulsory
	Credits Requirement		14 Credits			
Basic Courses	I020303	Advanced Food Chemistry	2	32	1	Compulsory
	Credits Requirement		2 Credits			
Discipline Core Course	DI020304	Food Flavor Chemistry: Theory and Practice	2	32	1	Compulsory
	DI120103	Surfactant Chemistry	1	16	1	Compulsory
	Credits Requirement		3 Credits			
Major Optional Course	DI120101	Frontiersin Daily Chemicals	2	32	1	Optional
	DI120102	Fluid flow and transportation machinery	2	32	1	Optional
	DI020306	Food Microbiology and Technology: Theory and Practice	2	32	1	Optional
	Credits Requirement		≥4 Credits			
Total Credits		23 Credits				

5. Teaching Language

English

6. Practice Part

6.1 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 oral reports or wall newspapers are required.

6.2 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.

7. Research and Dissertation

7.1 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.

7.2 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.

7.3 Dissertation

7.3.1 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.

7.3.2 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.

7.3.3 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 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. 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.

7.3.4 Requirements for paper publication

During the period of study (based on the date of admission), the doctoral candidate is required to publish the academic papers as the first author (or, advisor as the first author and the candidate as the second). The academic paper needs to be related to the dissertation, and the total points should be higher than 4.0. According to "Classification of Journals of Beijing Technology and Business University", a class A1 paper = 2 points; a class A2 paper = 1.5 points；a class A3 paper = 1 point；During the period of study, an authorized patent with the candidate as the first inventor (or, advisor as the first inventor and the candidate as the second) is regarded as international patent= 2points. Publishing one research paper on Nature, Science, Cell or their sub-issues, as the first author (or, advisor as the first author and the candidate

as the second), will fulfill the present requirement directly.

The above-mentioned academic papers and scientific research achievements must be published with the Beijing Technology and Business University as the primary affiliation. Prior to applying for doctoral defense, If the applicant has completed doctoral dissertation, but the academic paper has not been published formally, a Notification of Acceptance for this academic paper should be submitted. The applicants will receive their Doctoral Degree Certificate after the paper is formally published or other scientific research achievements that meet the above requirements.

7.3.5 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 <The BTBU Regulation for Doctoral Dissertation >.

7.3.6 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.

8. Course Syllabus

Course Syllabi are attached elsewhere.

轻工技术与工程（发酵工程）硕士留学研究生培养方案

授予学位类别：工学

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

以培养轻工领域高素质、高层次的应用型人才为目标。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，熟悉轻工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轻工领域专业技术工作的能力。

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：

1．食品生物技术

生物技术在食品科学研究和食品工程技术开发方面的应用，侧重在应用基因工程、细胞工程、发酵工程等现代生物技术开发安全、高效的生物源食品添加剂及功效因子，开展传统发酵食品的工艺技术优化和食品贮藏保鲜技术研究。在以下几个研究领域有特色：（1）以高通量生物芯片技术、基因组学、蛋白组学、代谢组学等系统生物技术进行食品品质劣变分子调控靶点筛选和绿色天然防腐剂/抗氧化剂/保鲜剂的高效合成，开发绿色高效食品品质调控技术；（2）生物催化转化和营养代谢。包括工业微生物菌种选育、高效生物酶制剂的研究及应用、食品发酵过程中宏基因组学变化规律、人体肠道中食品分解代谢与宏基因组学的相关性研究、生物质资源高值化利用及清洁生产技术研究等；（3）利用细胞工程及其过程调控技术研究特色植物及微生物中生物活性成分的生物炼制途径以及该途径中相关代谢产物及对应基因的表达，开发新型可用于食品配料、功能食品和化妆品的生物活性成分；（4）利用优化工业发酵微生物菌种、提高微生物定向转化能力和代谢效率等策略，提升优势传统发酵食品的工艺技术水平、产品品质和安全性，开展现代发酵技术和特种发酵制品的开发和应用研究。

2．生物分离工程

新型高效的生物活性成分提取分离技术研究及应用。（1）以高速逆流色谱为核心的高效分离纯化技术研究及其在高纯度、高活性、高附加值天然生物活性成分研究开发中的应用；（2）多种现代

生物提取分离技术的集成研究及其在植物资源的研究开发、特色农产品的高效利用等方面的应用，为新型天然药物、新型功能食品和个人保健品的研究和开发提供技术和物质支持；（3）以现代色谱分析技术及多种联用技术为手段，开展功能性食品和个人保健品的质量控制和安全性评价的方法研究。

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。

四、课程设置与学分要求

来华留学生的课程设置，汉语和中国概况应作为必修课，政治理论课作为哲学、政治学专业学生的必修课；要加强中文能力的训练，“中文授课的硕士留学生、博士留学生毕业时中文能力应当达到《国际汉语能力标准》五级水平，全英文授课的硕士留学生、博士留学生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”。 中文和全英文授课的硕士和博士留学生除原第一学期开设的《汉语》3 学分，54 学时，第二学期增加《中级汉语》3 学分，54 学时。

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	≥4
必修环节	2	总学分	≥26

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	I010102	中国概况	2	32	1	必修
	I070111	汉语（一级）	4	64	1	必修
	I070112	汉语（二级）	4	64	2	必修
	I070113	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	AI120301	生物活性成分分离纯化技术	2	32	1	必修
	AI120302	代谢工程	2	32	1	必修
	应修		4 学分			
专业课	DI020303	高级食品化学	2	32	1	必修
	应修		2 学分			
选修课	DI020306	食品微生物学与生物技术原理与实践	2	32	1	选修
	P020201	现代微生物与发酵工程	2	32	1	选修
	P020208	食品生物工程与技术转化	2	32	1	选修
	AI120303	过程工程原理	3	48	1	选修
	应修		≥4 学分			
课程总学分要求			≥24 学分			

五、授课语言

英文授课为主，个别课程为中文讲授

六、必修环节（2 学分）

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。

七、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（试行）》。

八、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、适用学科或专业学位（领域）、先修课程、主要教学内容和学时分配、参考文献等。

Professional Master Degree Program in Light Industry Technology and Engineering（Fermentation Engineering）for International Students

1. Education objectives

The objectives of this program are to cultivate high-qualified applied professionals who will have profound understanding of light industry technology and engineering. Students are required to master theoretical knowledge, scientific research methods and experimental practical skills of this subject, and also be familiar with development and research directions of light industry technology and engineering. Students are expected to show good qualities in science and teamwork with abilities of practice and innovation, in order to engage in scientific research or professional technical position in light industry technology and engineering.

2. Research field introduction

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．Food Biotechnology

Applications of biotechnology in food science and food engineering technology focus on applying of modern biotechnologies such as genetic engineering, cell engineering and fermentation engineering to develop safe and efficient bio-sourced food additives and efficacy factors, and to develop and optimize traditional fermented food technology and food storage and preservation technology. This program is featured in following research areas:

(1) Screening control targets of deterioration molecular for food quality, efficient synthesis of green natural preservatives/antioxidants/preservatives and developing green and efficient food quality control technology by applying high-throughput biochip technology, genomics, proteomics, metabolomics and other systematic biotechnologies.

(2) Biocatalytic conversion and nutrient metabolism, including selection of industrial microbial strains,

research and application of high-efficiency enzyme, change rule of metagenomics during food fermentation, correlation between food catabolism and metagenomics in the human intestine, high-value utilization of biomass resources and clean production technology research, etc.

(3) Researching biorefining pathways of bioactive components in characteristic plants and microorganisms by using cell engineering and process control techniques, and expression of related metabolites and corresponding genes in these pathways. Developing new bioactive components that applied in food ingredients, functional foods and cosmetics.

(4) Improving technology, product quality and safety of traditional fermented foods by optimizing industrial fermentation microbial strains, improving transformation ability and metabolic efficiency of microbial strains. Development and application research on modern fermentation technology and special fermentation products.

2．Bio-separation engineering

Research and application of new and highly efficient separation technologies of bioactive components.

(1) Research of high-efficiency separation and purification technologies, which focuses on countercurrent chromatography and its application in separation of high purity, high activity, high value natural bioactive components.

(2) Integrated research of multiple modern biological extraction and separation technologies and their applications in plant resources and special agricultural products to provide technical supports for new natural medicines, new functional foods and personal health products.

(3) Research on new methods of quality control and safety evaluation for functional foods and personal health products by using modern chromatographic analysis technology and multiple combined technologies.

3. Length of Schooling

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

4. Curriculum and Credits Requirements

Course Types	Course Code	Course Name	Credit	Course Hours	Semester	Compulsory/ Optional
Public Course	I010102	Introduction to China	2	32	1	Compulsory
	I070111	HSK（Level Ⅰ）	4	64	1	Compulsory
	I070112	HSK（Level Ⅱ）	4	64	2	Compulsory
	I070113	HSK（Level Ⅲ）	4	64	3	Compulsory
	Credits Requirement		14 Credits			
General course	AI120301	Separation Techniques for Bioactive Components	2	32	1	Compulsory

	AI120302	Metabolic Engineering	2	32	1	Compulsory
	Credits Requirement		4 Credits			
Major course	DI020303	Advanced food chemistry	2	32	1	Compulsory
	Credits Requirement		2 Credits			
Major optional course	DI020306	Principle and Practice of Food Microbiology and Biotechnology	2	32	1	Optional
	P020201	Modern Microorganism and Fermentation Engineering	2	32	1	Optional
	P020208	Food Bioengineering and Technology Transformation	2	32	1	Optional
	AI120303	Principles of Process Engineering	3	48	1	Optional
	Credits Requirement		≥4 Credits			
Total Credits			24 Credits			

5. Teaching Language

Mainly in English, some courses are taught in Chinese

6. Practice Part

1. Academic events (1 credit)

Including participation in international and domestic academic conferences, academic forums, academic reports, and oral presentation/report at international academic conferences. Appraisable standard of each academic event should be regulated based on actual conditions

2.Practice (1 credit)

Practice education for international students should satisfy both professional requirements and career planning to meet the requirements of international talents. Appraisable standard of each academic event should be regulated based on actual conditions

7. The Dissertation Related Work

The dissertation related works in this program include dissertation research initiation, dissertation mid-term examination, scientific research results review, repetition rate detection, anonymous review, and defense. For specific requirements, please refer to "Working Rules for the Awarding of Doctoral and Master Degrees for International students of Beijing Technology and Business University".

8. Course Syllabus

Content of course syllabus includes course code, course name, course hours, credits, teaching objectives, teaching methods, assessment methods, applicable disciplines or professional degrees (fields), prerequisite courses, main teaching content and course hours allocation, references, etc.

化妆品科学与技术硕士留学研究生培养方案

授予学位类别：工学

一级学科代码及名称：0817 化学工程与技术

二级学科代码及名称：0817Z1 化妆品科学与技术

制订单位：轻工科学与工程学院

一、培养目标

培养熟悉中国历史、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，掌握本学科坚实的基础理论和系统的专业知识，了解本学科国内外发展动态，熟悉科研与技术开发的方法和程序，在化妆品科学与工程领域具有独立从事科研、教学或担任专门技术工作能力的高层次专门人才。

二、学科简介与研究方向

化妆品科学与技术是隶属于化学工程与技术硕士一级学科的新兴领域。本学科以化学、生物技术为基础，结合植物化学和中医药理论，研究化妆品原料及产品的生产工艺和性能，为化妆品开发、生产、使用与安全监管提供技术支撑与科学依据。

1. 皮肤分子生态与化妆品生物技术

通过皮肤脂质组学、高通量微生物测序、转录组学等生物技术手段研究不同人群的皮肤本态（皮肤脂质组成、皮肤微生态等）及相关基因表达水平，采用生物信息学方法对多类皮肤状态信息进行有效融合，挖掘出相同皮肤类型或部位皮肤状态信息之间存在相似性、关联性的特征指标，归纳皮肤状态的内在联系规律。

2. 皮肤医学养生技术

以中医理论为指导，以皮肤本态为基础；充分利用影像技术、现代科技手段，研究不同人群的皮肤本态（皮肤表观、皮肤本底、皮肤微循环等相关内容）；分析、挖掘、归纳不同人群皮肤状态信息之间的特征指标，总结其内在联系规律，建立不同别类的人群养生数字模型；提供不同类型人群的皮肤状态综合评价、状态预测、护理决策指导原则；为开发更适合于人体皮肤健康的护理品奠定理论基础和科技支撑，以达到皮肤健康养生的目的。

3. 化妆品植物原料与配方技术

以中医理论为指导，以皮肤科学为基础，研究开发特色植物功效原料，设计开发具有中国文化底蕴的化妆品，为支撑中国化妆品产业的发展贡献力量。

4. 化妆品安全与功效评价

基于动物替代、生物化学、细胞生物学、人体临床和感官评价等技术与方法，系统地建立性能评价方法体系，为化妆品原料及产品的功能宣称提供科学技术支持。

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。

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	10	基础课	6
专业课	6	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	I010102	中国概况	2	32	1	必修
	I070107	汉语（四级）上	2	32	1	必修
	I070108	汉语（四级）下	2	32	2	必修
	I070109	汉语（五级）上	2	32	3	必修
	I070110	汉语（五级）下	2	32	4	必修
	应修		10 学分			
基础课	A130201	现代化妆品学	2	32	1	必修
	A130202	天然产物化学	2	32	1	必修
	A130203	化妆品生物技术	2	32	1	必修
	应修		6 学分			
专业课	A130204	化妆品安全与风险评估	2	32	2	必修
	A130205	化妆品仪器分析	2	32	2	必修
	A130206	化妆品功效原料	2	32	1	必修
	应修		6 学分			
选修课	A130207	美容中药方剂学	2	32	2	选修
	A130208	美容皮肤科学	2	32	1	选修
	A130209	化妆品工程原理	2	32	2	选修
	A130307	实验数据处理与信息化技术	2	32	1	选修
	A130210	基因工程技术	2	32	2	选修
	A130211	实验设计与统计分析	2	32	2	选修
	A130213	化妆品艺术与创新设计	2	32	1	选修
	A130215	专业英语	1	16	1	选修
	A130214	化妆品胶体化学	1	16	2	选修
	A130134	现代微生物学技术	2	32	2	选修
	A130135	细胞实验原理与技术	2	32	1	选修
	A130145	化妆品科技与监管前沿进展	1	16	2	选修
		跨学科选修课（导师指导）	2			必选
	应修		≥6 学分			
课程总学分要求			≥28 学分			

说明：

1. 汉语课：研究生汉语课程实行年级教学。研究生一年级学生每学期授课学时为 32 学时，2 学分；研究生二年级学生每学期授课学时为 32 学时，2 学分。若学生已通过汉语水平考试，可申请免修相应等级的汉语课程。

2. 其它专业课具体要求参照同学历层次国内生相应要求。

五、授课语言

中文

六、必修环节（2 学分）

1.学术活动（1 学分）

硕士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。

2.专业实践（1 学分）

学术型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》。

七、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》。

八、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。

Training program for overseas graduate students in cosmetic science and Technology

1.Training Target

Cultivate familiar with Chinese history, geography, social, economic, China's national conditions and culture the basic knowledge, understand China's political system and foreign policy, understanding China's mainstream social values and public morality, the formation of a good idea of the rule of law and moral consciousness, to master the disciplines of solid basic theory and system of professional knowledge, understand the discipline development trends at home and abroad, familiar with scientific research and technology development of methods and procedures, in the field of cosmetic science and engineering have independent engaged in scientific research, teaching, or as a special technical work ability of high-level talents.

2.Overview of the Program

Cosmetic science and technology is an emerging field belonging to the first-level discipline of the master of chemical engineering and technology.Based on chemistry and biotechnology, this discipline combines phytochemistry and traditional Chinese medicine theories to study the production process and performance of cosmetics raw materials and products, so as to provide technical support and scientific basis for the development, production, use and safety supervision of cosmetics.

1.Skin molecular ecology and cosmetic biotechnology

Through the skin lipid omics, high-throughput microbial biotechnology means such as sequencing, transcriptome study different populations of skin this state (skin lipid composition, micro ecology, etc.) and related gene expression level, using bioinformatics methods for many kinds of skin state information for effective integration, digging out the same skin type or skin state information, the characteristics of the correlation between similarity index, summarized the state of the skin inner link.

2.Dermatological health maintenance technology

Guided by the theory of traditional Chinese medicine and based on the skin state; Make full use of imaging technology and modern technological means to study the skin state (skin appearance, skin background, skin microcirculation, etc.) of different populations;By analyzing, mining and summarizing the characteristic indexes of skin condition information of different groups, and summarizing their internal correlation rules, the digital models of health maintenance of different groups were established.To provide comprehensive evaluation, condition prediction and nursing decision guidelines for different types of people;In order to develop more suitable for human skin health care products to lay the theoretical basis and scientific and technological support to achieve the goal of skin health.

3. Cosmetic plant materials and formulation technology

Under the guidance of traditional Chinese medicine theory and on the basis of dermatology, we will research and develop characteristic plant efficacy raw materials, design and develop cosmetics with Chinese cultural heritage, and contribute to the development of China's cosmetics industry.

4. Safety and efficacy evaluation of cosmetics

Based on the techniques and methods of animal substitution, biochemistry, cell biology, human clinical and sensory evaluation, the system of performance evaluation methods is systematically established to provide scientific and technical support for the functional claims of cosmetics raw materials and products.

3. Length of Schooling

The length of schooling of the academic master is 3 years, and the longest length of schooling is 5 years.

4. Curriculum and Credits Requirements

Course Classification	Credits required	Course Classification	Credits required
Public Course	10	Basic Courses	6
Professional courses	6	Optional course	6
compulsorycourses	2	Total Credits	⩾30

Course Classification	Course Code	Course Name	Credit	Course Hours	Semester	Compulsory/ Optional
Public Course	I010102	Chinese Culture	2	32	1	Compulsory
	I070107	HSK（Level Ⅳ）A	2	32	1	Compulsory
	I070108	HSK（Level Ⅳ）B	2	32	2	Compulsory
	I070109	HSK（Level Ⅴ）A	2	32	3	Compulsory
	I070110	HSK（Level Ⅴ）B	2	32	4	Compulsory
	Credits Requirement		10 Credits			
Basic Courses	A130201	Modern cosmetics	2	32	1	Compulsory
	A130202	Natural Product Chemistry	2	32	1	Compulsory
	A130203	Cosmetic Biotechnology	2	32	1	Compulsory
	Credits Requirement		6 Credits			
Discipline Core Course	A130204	Cosmetics safety and risk assessment	2	32	2	Compulsory
	A130205	Cosmetic instrument analysis	2	32	2	Compulsory
	A130206	Cosmetic efficacy of raw materials	2	32	1	Compulsory
	Credits Requirement		6 Credits			

Major Optional Course	A130207	BeautyChinese medicine prescriptions	2	32	2	Optional
	A130208	Beauty and skin science	2	32	1	Optional
	A130209	Cosmetic Engineering Principles	2	32	2	Optional
	A130307	Experimental Data Processing and Information Technology	2	32	1	Optional
	A130210	Genetic engineering technology	2	32	2	Optional
	A130211	Experimental design and statistical analysis	2	32	2	Optional
	A130213	Cosmetics art and innovative design	2	32	1	Optional
	A130214	Cosmetic colloid chemistry	1	16	2	Optional
	A130215	Professional English	1	16	1	Optional
	A130134	Modern microbial technology	2	32	2	Optional
	A130135	Principles and techniques of cell biology experiment	2	32	1	Optional
	A130145	Frontier Progress of Science, Technology and Regulation in Cosmetics	1	16	2	Optional
		Interdisciplinary Optional Course (Tutor guidance)	2			Compulsory
	Credits Requirement		6 Credits			
Total Credits			≥28 Credits			

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

5. Teaching Language

Chinese

6. Practice Part

1. Academic activities (1 credit)

Master students must attend at least 10 lectures, academic reports, or graduate forums organized or recognized by the graduate school, school, or discipline.

2. Professional practice (1 credit)

The professional innovation practice of academic master students includes academic seminar, scientific research, professional practice, discipline competition, social service and

other activities. At least 4 of the 5 activities should be selected to complete according to the requirements. For details, please refer to the "regulations on the management of the cultivation of full-time academic master students of Beijing Technology and Business University".

7. The Dissertation Related Work

In the process of cultivating overseas graduate students, relevant links and dissertation work include thesis proposal defense, mid-term inspection, review of scientific research results, text repetition rate detection, anonymous review and defense. For specific requirements, please refer to the "administrative measures for doctoral dissertation of Beijing technology and business university" and "detailed rules for the awarding of doctoral and master degrees to graduate students in China by Beijing technology and business university (for trial implementation)".

8. Course Syllabus

The course syllabus includes course code, course title, class hours, credits, teaching objectives, teaching methods, assessment methods, applicable subjects, advanced courses, main teaching content and class hour assignment, references, etc.

材料与化工硕士留学研究生培养方案

授予学位类别：材料与化工

专业学位类别代码及名称：0856 材料与化工

制订单位：轻工科学与工程学院

一、培养目标

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。掌握材料与化工领域的基础理论和系统的专业知识，具备材料与化工技术研究和工程化能力，能够胜任材料与化工工程领域教育教学、科学研究、技术开发和工程管理工作的高级专门技术人才。

二、学科简介与研究方向

材料与化工专业硕士学位主要面向材料行业及相关工程部门培养基础扎实、素质全面、工程实践能力强，并具有一定创新能力的应用型、复合型高层次工程技术和工程管理人才。本领域涉及材料的获得，质量的改进，使材料成为人们可用的器件或构件的生产工艺、制造技术、工程规划、工程设计、技术经济管理等工程知识，并与冶金工程、机械工程、控制工程、电气工程、电子与信息工程、计算机技术、工业设计工程、化学工程、生物医学工程等领域密切相关。根据学科特色，本学位点主要培养高分子材料及其复合材料领域的专业技术人才。

北京工商大学材料科学与工程学科属于工学一级学科。1997 年获批材料加工工程硕士学位授予权，并于 2008 年获批北京市重点建设学科，2011 年取得材料科学与工程一级学科硕士学位授予权。2012 年开始招收材料工程专业学位研究生。材料科学与工程学科历经 20 余年的发展，形成了以高分子材料加工应用为特色的完善的教学科研体系，培养了大量高分子材料领域的优秀人才，为国家发展建设作出了贡献。

学科主要集中在聚合物成型加工、聚合物结构与性能关系、聚合物的环境行为等方面开展研究，主要包括以下 2 种研究方向：环境友好高分子材料和聚合物基功能复合材料。

三、学制和学习年限

工程类硕士专业学位研究生学制 3 年，最长修业年限 5 年。

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	I010102	中国概况	2	32	1	必修
	I070111	汉语（一级）	4	64	1	必修
	I070112	汉语（二级）	4	64	2	必修
	I070113	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	PI130113	材料结构与性能	2	32	2	必修
	PI130102	材料表征与测试	2	32	1	必修
	应修		4 学分			
专业课	PI130115	高分子材料工程设计基础	1	16	2	必修
	PI130104	材料科学与工程前沿	1	16	1	必修
	PI130114	现代高分子合成与加工技术	2	32	2	必修
	应修		4 学分			
选修课	PI130106	聚合物共混理论	1	16	2	选修
	PI130107	环境友好高分子材料	2	32	1	选修
	PI130108	功能材料制备与原理	1	16	1	选修
	PI130109	食品包装材料与安全	1	16	1	选修
	PI130110	纳米材料	1	16	1	选修
	PI130111	功能高分子材料前沿	1	16	1	选修
	PI130116	分子与材料	1	16	2	选修
	应修		≥6 学分			
课程总学分要求			≥28 学分			

说明：具体要求参照同学历层次国内生相应要求。

五、授课语言

英文

六、必修环节（2 学分）

1.学术活动（1 学分）

硕士留学生在校期间须参加至少 5 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。

2.专业实践（1 学分）

工程类硕士专业学位研究生开展专业实践，可采用参观实习的方式，对相关专业的对口企业进行参观实习，研究生在导师指导下完成专业实践，实践结束提供相关证明和接受单位鉴定，撰写不少于 3000 字的实践学习总结报告。

七、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》。

八、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、适用学科或专业学位（领域）、先修课程、主要教学内容和学时分配、参考文献等。

Cultivation Scheme for Postgraduate Studying for Degrees in Materials and Chemical Engineering

1.Training Target

Cultivated foreign students should be familiar with Chinese national conditions and basic cultural knowledge such as Chinese history, geography, society, economy, etc., love China, understand China’s political system and foreign policy, understand the mainstream values and public moral concepts of Chinese society, and form a good legal concept and moral awareness . Master the basic theory and system expertise in the field of materials and chemical engineering, with material and chemical technology research and engineering capabilities, can be qualified for advanced professional technical personnel in the field of materials and chemical engineering education, scientific research, technology development and engineering management.

2.Overview of the Program

The master's degree in materials and chemical engineering is mainly for the application industry, composite high-level engineering technology and engineering management talents with solid foundation, comprehensive quality, strong engineering practice ability, and certain innovation ability. This field involves the acquisition of materials and the improvement of quality, making materials become usable devices or components of the production process, manufacturing technology, engineering planning, engineering design, technical and economic management and other engineering knowledge, and with metallurgical engineering, mechanical engineering, control engineering , Electrical engineering, electronics and information engineering, computer technology, industrial design engineering, chemical engineering, biomedical engineering and other fields are closely related. According to the characteristics of the discipline, this degree program mainly trains professional and technical personnel in the field of polymer materials and composite materials.

The discipline of materials science and engineering of Beijing Technology and Business University belongs to the first-level discipline of engineering. Master's degree in materials processing engineering was granted in 1997 and was approved as a key construction discipline in Beijing in 2008. In 2012, graduate students majoring in materials engineering began to be enrolled. After more than 20 years of development, the discipline of materials science and engineering has formed a perfect teaching and research system featuring the processing and application of polymer materials. It has cultivated a large number of outstanding talents in the field of polymer materials and contributed to the development and construction of the country.

The subject mainly focuses on polymer molding and processing, the relationship between polymer structure and performance, and the environmental behavior of polymers. It mainly includes the following 2 research directions:Environment-friendly Polymer Materials and Polymer-based Functional Composites.

3. Length of Schooling

The engineering master's degree graduate degree system is three years, with a maximum duration of five years.

4. Curriculum and Credits Requirements

Course Classification	Credits required	Course Classification	Credits required
Public Course	14	Basic Courses	4
Professional courses	4	Optional course	⩾6
compulsorycourses	2	Total Credits	⩾30

Course Classification	Course Code	Course Name	Credits	Course Hours	Semester	Compulsory/ Optional
Public Course	I010102	Chinese Culture	2	32	1	Compulsory
	I070111	HSK（Level Ⅰ）	4	64	1	Compulsory
	I070112	HSK（Level Ⅱ）	4	64	2	Compulsory
	I070113	HSK（Level Ⅲ）	4	64	3	Compulsory
	Credits Requirement		14 Credits			
Basic Courses	PI130113	Material structure and performance	2	32	2	Compulsory
	PI130102	Material characterization and testing	2	32	1	Compulsory
	Credits Requirement		4 Credits			
Discipline Core Course	PI130115	Engineering design fundamentals of polymer materials	1	16	2	Compulsory
	PI130104	Frontiers of materials science and engineering	1	16	1	Compulsory
	PI130114	Modern polymer synthesis and processing technology	2	32	2	Compulsory
	Credits Requirement		4 Credits			
Major Optional Course	PI130106	Polymer blending theory	1	16	2	Optional
	PI130107	Environmentally friendly polymer materials	2	32	1	Optional
	PI130108	Functional material preparation and principle	1	16	1	Optional
	PI130109	Food packaging materials and safety	1	16	1	Optional
	PI130110	Nano materials	1	16	1	Optional
	PI130111	Frontier of functional polymer materials	1	16	1	Optional
	PI130116	Molecules and materials	1	16	2	Optional
	Credits Requirement		⩾6 Credits			
Total Credits			⩾28 Credits			

5. Teaching Language

English

6. Practice Part

1. Academic activities (1 credit)

Graduate students must attend at least 5 special lectures, academic reports or graduate forums organized or recognized by graduate schools, colleges or disciplines.

2. Professional Practice (1 credit)

For engineering master degree graduates to carry out professional practice, they can use the way of visiting and internship to visit the corresponding enterprises of related majors. The graduates complete the professional practice under the guidance of the tutor. After the practice ends, they provide relevant proofs and accept the identification of the unit. 3000-word practice study summary report.

7. The Dissertation Related Work

In the process of cultivating overseas graduate students, relevant links and dissertation work include thesis proposal defense, mid-term inspection, review of scientific research results, text repetition rate detection, anonymous review and defense. For specific requirements, please refer to the "administrative measures for doctoral dissertation of Beijing technology and business university" and "detailed rules for the awarding of doctoral and master degrees to graduate students in China by Beijing technology and business university (for trial implementation)".

8. Course Syllabus

The course syllabus includes course code, course title, class hours, credits, teaching objectives, teaching methods, assessment methods, applicable subjects, advanced courses, main teaching content and class hour assignment, references, etc.

环境科学与工程硕士留学研究生培养方案

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。

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：

（1）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。

（2）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。

（3）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。

（4）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。

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。

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		课程名称	学分	学时	开课学期	是否必修
公共课	I010102	中国概况	2	32	1	必修
	I070111	汉语（一级）	4	64	1	必修
	I070112	汉语（二级）	4	64	2	必修
	I070113	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	AI140101	高等环境化学	2	32	1	选择性必修，需从两门课中选择一门
	AI140102	环境科学与工程前沿	2	32	1	
	应修		2 学分			
专业课	AI140103	水处理原理	2	32	1	选择性必修，需从四门课中选择一门
	AI140104	大气污染控制与装备	2	32	1	
	AI140105	固体废物资源化处理工程	2	32	1	
	AI140106	工业清洁生产原理与方法	2	32	1	
	应修		2 学分			
选修课	AI140107	现代环境分析技术	2	32	1	选修
	AI140108	环境生态学	2	32	1	选修
	AI140109	环境规划与管理	2	32	1	选修
	AI140111	环境分析波谱学	1	16	1	选修
	AI140112	环境代谢组学	1	16	1	选修
	AI140114	能源与环境	2	32	1	选修
	AI140115	现代环境生物技术	2	32	1	选修
	AI140116	膜分离技术原理及应用	2	32	1	选修
	AI140117	农业面源污染与控制	2	32	1	选修
	AI140118	高浓度有机工业废水生物处理技术	2	32	1	选修
	AI140110	环境与资源经济学	2	32	2	选修
	AI140119	专业英语	2	32	2	选修
	AI140113	英文科技论文写作	1	16	2	选修
	AI140120	大气污染化学与物理	2	32	2	选修

	AI140121	生态保护与修复	2	32	2	选修
	AI140122	环境毒理与健康风险	2	32	2	选修
	AI140123	环境催化技术	2	32	2	选修
	AI140124	工业分离技术	2	32	2	选修
	AI140125	生物质转化技术	2	32	2	选修
	AI140126	逻辑与批判性思维	2	32	2	选修
	AI140127	土壤污染修复技术	2	32	2	选修
	AI140128	大气污染监测技术	2	32	2	选修
	AI140129	工业废水处理前沿	2	32	2	选修
	AI140130	土壤与地下水污染防治工程	2	32	2	选修
	AI140131	环境与食品分析技术	2	32	2	选修
	AI140132	新污染物的样品分析技术与应用	2	32	2	选修
	AI140133	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。

五、授课语言

英文

六、必修环节（2 学分）

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。

七、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》。

八、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。

Master of EnvironmentalScienceandEngineering

1.Training Target

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.

2.Overview of the Program

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.

3. Length of Schooling

This is a full-time three-year length program, which has a five-year maximum length of schooling.

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
Practice Part	2	Total Credits	≥24

Course Classification	Course Code	Course Name	Credits	Course Hours	Semester	Compulsory/ Optional
Public Course	I010102	Chinese Culture	2	32	1	Compulsory
	I070111	HSK（Level Ⅰ）	4	64	1	Compulsory
	I070112	HSK（Level Ⅱ）	4	64	2	Compulsory
	I070113	HSK（Level Ⅲ）	4	64	3	Compulsory
	Credits Requirement		14 Credits			

Basic Courses	AI140101	Advanced Environmental Chemistry	2	32	1	Compulsory, select one from the two courses
	AI140102	Frontiers of Environmental Science and Engineering	2	32	1	
	Credits Requirement		2Credits			
Discipline Core Course	AI140103	Principle of Water Treatment	2	32	1	Compulsory, select one from the four courses
	AI140104	Atmospheric Pollution Control and Equipment	2	32	1	
	AI140105	Solid Waste Resource Treatment Project	2	32	1	
	AI140106	Principles and Methods of Industrial Cleaner Production	2	32	1	
	Credits Requirement		2 Credits			
Major Optional Course	AI140107	Modern Environmental Analysis Technology	2	32	1	Optional
	AI140108	Environmental ecology	2	32	1	Optional
	AI140109	Environmental Planning and Management	2	32	1	Optional
	AI140111	Environmental Analysis Spectroscopy	2	32	1	Optional
	AI140112	Environmental Metabolomics	1	16	1	Optional
	AI140114	Energy and Environment	2	32	1	Optional
	AI140115	Modern Environmental Biotechnology	2	32	1	Optional
	AI140116	Principle and Application of Membrane Separation Technology	2	32	1	Optional
	AI140117	Agricultural Non-point Source Pollution and Control	2	32	1	Optional
	AI140118	Biological Treatment Technology of High Concentration	2	32	1	Optional

		Organic Industrial Wastewater				
	AI140110	Environment and Resource Economics	2	32	2	Optional
	AI140119	Professional English	2	32	2	Optional
	AI140113	English Scientific Paper Writing	1	16	2	Optional
	AI140120	Air Pollution Chemistry and Physics	2	32	2	Optional
	AI140121	Ecological Protection and Restoration	2	32	2	Optional
	AI140122	Environmental Toxicology and Health Risks	2	32	2	Optional
	AI140123	Environmental Catalysis Technology	2	32	2	Optional
	AI140124	Industrial Separation Technology	2	32	2	Optional
	AI140125	Biomass Conversion Technology	2	32	2	Optional
	AI140126	Logic and Critical Thinking	2	32	2	Optional
	AI140127	Soil Pollution Remediation Technology	2	32	2	Optional
	AI140128	Air Pollution Monitoring Technology	2	32	2	Optional
	AI140129	Frontiers in Industrial Wastewater Treatment	2	32	2	Optional
	AI140130	Soil and Groundwater Pollution Prevention and Control Project	2	32	2	Optional
	AI140131	Environment and Food Analysis Techniques	2	32	2	Optional
	AI140132	Sample Analysis Techniques and Applications for Emerging Pollutants	2	32	2	Optional
	AI140133	Environmental Satellite Remote Sensing Technology and Applications	2	32	2	Optional
	Credits Requirement		⩾4Credits			
Total Credits			⩾22 Credits			

5. Teaching Language

English

6. Practice Part

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.

7. The Dissertation Related Work

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)。

8. Course Syllabus

Course Syllabus includes course code, course name, credit hour, credit, teaching aims, teaching styles, evaluation method, applicable discipline, prerequisite course, teaching materials, time allocation and references.

资源与环境硕士留学研究生培养方案

授予学位类别：资源与环境

专业学位类别代码及名称：0857 资源与环境

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，培养德智体美劳全面发展的社会主义建设者和接班人，造就能够担当民族复兴大任的时代新人。培养资源与环境行业具有环境工程专业背景，适应行业和区域发展需求的，基础扎实、素质全面、工程实践能力强，并具有一定创新能力的应用型、复合型高层次工程技术与工程管理人才。学位获得者应较熟练地掌握一门外语，在环境工程相关行业具备独立担负工程规划、工程设计、工程实施、工程研究、工程开发、工程管理等专门技术工作能力。

二、类别（领域）简介与研究方向

研究方向 1：城市环境治理

主要围绕城市大气、水等多介质污染协同治理关键技术，开展城市大气污染精准溯源、污水处理新技术和水环境污染修复与预警研究。主要内容包括：城市机动车排放特征和城市大气污染源高分辨率排放清单研究、低碳减排污水生物处理新技术、再生水循环利用与水质安全评价、水环境污染修复与预警等。

研究方向 2：有机固废资源化

主要围绕有机废弃物高值安全利用理论与技术，开展城乡和轻工行业有机废弃物的资源化利用研究。主要内容包括：餐厨废弃物安全高值利用技术及产业化等。

研究方向 3：轻工清洁生产

主要围绕轻工典型行业的绿色制造和清洁生产关键技术，重点研究食品发酵工业的低碳、清洁和绿色发展技术。主要内容包括：食品发酵工业资源综合利用、行业绿色制造体系建设及评估等。

研究方向 4：生态环境与食品安全

主要围绕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，重点研究食品安全相关污染物风险检测和控制。主要内容包括：给水抗生素抗性基因和消毒副产物的生成/迁移/转化与控制、食品安全检测与生物基绿色食品包装材料等。

三、学制和学习年限

专业硕士研究生学制 3 年，最长修业年限 5 年。

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		课程名称	学分	学时	开课学期	是否必修
公共课	I010102	中国概况	2	32	1	必修
	I070111	汉语（一级）	4	64	1	必修
	I070112	汉语（二级）	4	64	2	必修
	I070113	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	P140101	工程项目管理	2	32	1	选择性必修，需从两门课中选择一门
	P140106	试验设计及最优化	2	32	1	
	应修		2 学分			
专业课	AI140107	现代环境分析技术	2	32	1	选择性必修，需从三门课中选择一门
	P140110	环境生物工程	2	32	1	
	P140109	污染控制化学及工程	2	32	1	
	应修		2 学分			
选修课	AI140103	水处理原理	2	32	1	选修
	AI140104	大气污染控制与装备	2	32	1	选修
	AI140101	高等环境化学	2	32	1	选修
	AI140105	固体废物资源化处理工程	2	32	1	选修
	AI140106	工业清洁生产原理与方法	2	32	1	选修
	AI140108	环境生态学	2	32	1	选修
	AI140109	环境规划与管理	2	32	1	选修
	AI140111	环境分析波谱学	1	16	1	选修
	AI140112	环境代谢组学	1	16	1	选修
	AI140114	能源与环境	2	32	1	选修
	AI140115	现代环境生物技术	2	32	1	选修
	AI140117	农业面源污染与控制	2	32	1	选修
	AI140118	高浓度有机工业废水生物处理技术	2	32	1	选修
	A140131	环境污染与食品安全	2	32	1	选修
	AI140110	环境与资源经济学	2	32	2	选修

	AI140119	专业英语	2	32	2	选修
	AI140113	英文科技论文写作	1	16	2	选修
	AI140120	大气污染化学与物理	2	32	2	选修
	AI140121	生态保护与修复	2	32	2	选修
	AI140122	环境毒理与健康风险	2	32	2	选修
	AI140123	环境催化技术	2	32	2	选修
	AI140124	工业分离技术	2	32	2	选修
	AI140125	生物质转化技术	2	32	2	选修
	AI140126	逻辑与批判性思维	2	32	2	选修
	AI140127	土壤污染修复技术	2	32	2	选修
	AI140128	大气污染监测技术	2	32	2	选修
	AI140129	工业废水处理前沿	2	32	2	选修
	AI140130	土壤与地下水污染防治工程	2	32	2	选修
	P140108	膜分离技术	2	32	2	选修
	AI140132	新污染物的样品分析技术与应用	2	32	2	选修
	AI140133	环境卫星遥感技术与应用	2	32	2	选修
	AI140131	环境与食品分析技术	2	32	2	选修
	P140111	食品中污染物健康风险评估	2	32	2	选修
	P140112	绿色制造技术	2	32	2	选修
	P140113	食品工业废水处理	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。

五、授课语言

英文

六、必修环节（2 学分）

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。

七、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（试行）》。

八、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。

Master of Resources and Environment

(Environmental Engineering)

1.Training Target

This master program aims to cultivate high-quality innovative talents in the fields of resources and environment. The program requires students to grasp solid theoretical knowledge, scientific research abilities, and practical skills, as well as possess strong team spirit, and a degree of innovation ability. The program also emphasizes the importance of independent work capabilities in environmental engineering-related industries.

2.Research directions

Direction 1: Regional environment treatment.

This research direction is focused on coordinated control of urban air, water, and other multimedia pollution. The research topics include precise tracing of urban air pollution, new technologies for sewage treatment, remediation and early warning of water environment pollution. The specific research topics include characteristics of urban motor vehicle emissions and high-resolution emission inventory of urban air pollution sources, new technologies for wastewater biological treatment with low-carbon and emission reduction, recycled water recycling and water quality safety evaluation, water environment pollution remediation and early warning.

Direction 2: Organic waste utilization.

This research direction focuses on the safe and high-value utilization of organic waste, with a particular emphasis on resource utilization in urban and rural areas, as well as in light industry. The research topics include the development of safe and high-value utilization technologies for organic waste, as well as the industrialization of kitchen waste.

Direction 3: Cleaner production in the light industry.

This research direction is focused on green manufacturing and clean production in typical light industry industries, with a focus on low carbon, clean, and green development technologies for the food

fermentation industry. Specific research topics include comprehensive utilization of food fermentation industry resources, construction and evaluation of industry green manufacturing system.

Direction 4: Ecological environment and food safety.

This research direction focuses on the influence of medium environment and microenvironment pollution on food safety risks and its control theory and technology. The specific research topics include 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.

3. Length of Schooling

This is a full-time three-year length of schooling program, which has five-year maximum length of schooling.

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
Practice Part	2	Total Credits	⩾24

Course Classification	Course Code	Course Name	Credits	Course Hours	Semester	Compulsory/ Optional
Public Course	I010102	Chinese Culture	2	32	1	Compulsory
	I070111	HSK(Level I)	4	64	1	Compulsory
	I070112	HSK(Level I)	4	64	2	Compulsory
	I070113	HSK(Level III)	4	64	3	Compulsory
	Credits Requirement		14 Credits			
Basic Courses	P140101	Project Management	2	32	1	Compulsory, select one from the two courses
	P140106	Experiment Design and Optimization	2	32	1	
	Credits Requirement		2 Credits			
Discipline Core Course	AI140107	Modern Environmental Analysis Technology	2	32	1	Compulsory, select one from the three courses
	P140110	Environmental Bioengineering	2	32	1	
	P140109	Pollution Control Chemistry and Engineering	2	32	1	
	Credits Requirement		2 Credits			
Major Optional Course	AI140103	Principle of Water Treatment	2	32	1	Optional
	AI140104	Atmospheric Pollution Control and Equipment	2	32	1	Optional

	AI140105	Solid Waste Resource Treatment Project	2	32	1	Optional
	AI140106	Principles and Methods of Industrial Cleaner Production	2	32	1	Optional
	AI140101	Advanced Environmental Chemistry	2	32	1	Optional
	AI140108	Environmental Ecology	2	32	1	Optional
	AI140109	Environmental Planning and Management	2	32	1	Optional
	AI140111	Environmental Analysis Spectroscopy	2	32	1	Optional
	AI140112	Environmental Metabolomics	1	16	1	Optional
	AI140114	Energy and Environment	2	32	1	Optional
	AI140115	Modern Environmental Biotechnology	2	32	1	Optional
	AI140117	Agricultural Non-point Source Pollution and Control	2	32	1	Optional
	AI140118	Biological Treatment Technology of High Concentration Organic Industrial Wastewater	2	32	1	Optional
	A140131	Environmental Pollutionand Food Safety	2	32	1	Optional
	AI140110	Environment and Resource Economics	2	32	2	Optional
	AI140119	Professional English	2	32	2	Optional
	AI140113	English Scientific Paper Writing	1	16	2	Optional
	AI140120	Air Pollution Chemistry and Physics	2	32	2	Optional
	AI140121	Ecological Protection and Restoration	2	32	2	Optional
	AI140122	Environmental Toxicology and Health Risks	2	32	2	Optional
	AI140123	Environmental Catalysis Technology	2	32	2	Optional
	AI140124	Industrial Separation Technology	2	32	2	Optional
	AI140125	Biomass Conversion Technology	2	32	2	Optional
	AI140126	Logic and Critical Thinking	2	32	2	Optional
	AI140127	Soil Pollution Remediation Technology	2	32	2	Optional
	AI140128	Air Pollution Monitoring Technology	2	32	2	Optional
	AI140129	Frontiers in Industrial Wastewater Treatment	2	32	2	Optional
	AI140130	Soil and Groundwater Pollution Prevention and Control Project	2	32	2	Optional
	P140108	Membrane Separation Technology	2	32	2	Optional
	AI140132	Sample Analysis Techniques and Applications for Emerging Pollutants	2	32	2	Optional

	AI140133	Environmental Satellite Remote Sensing Technology and Applications	2	32	2	Optional
	AI140131	Environment and Food Analysis Techniques	2	32	2	Optional
	P140111	Health Risk Assessment of Pollutants in Food	2	32	2	Optional
	P140112	Green Manufacturing Technology	2	32	2	Optional
	P140113	Wastewater Treatment in the Food Industry	2	32	2	Optional
	Credits Requirement		⩾4 Credits			
Total Credits			⩾22 Credits			

5. Teaching Language

English

6. Practice Part

1. Academic Activities（1 credit）

tudents 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.

7. The Dissertation Related Work

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).

8. Course Syllabus

Course syllabus includes course code, course name, credit hour, credit, teaching aims, teaching styles, evaluation method, applicable discipline, prerequisite course, teaching materials, time allocation and references.

数据科学与人工智能学部

计算机与人工智能学院

管理科学与工程（工学）硕士留学研究生培养方案

授予学位类别：工学

一级学科代码名称：1201 管理科学与工程

制订单位：计算机与人工智能学院

一、培养目标

掌握本学科坚实的基础理论和系统的专门知识，具有独立从事经营管理、独立承担专门技术工作的能力，具有较高的综合素质、创新和创业精神。了解本学科国内外发展动态，能正确地运用定量方法与现代信息技术解决管理领域中的理论与实际问题。来华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，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、学科简介与研究方向

管理科学与工程是管理学门类中的一级学科（本学科不分设二级学科）。管理科学与工程是为了实现管理目标，应用工程技术科学、数学、系统科学及社会科学知识，对人员、物资、设备、技术、能源和信息等组成的各种系统进行设计、评价、决策、改进、实施和控制的一门学科。

北京工商大学管理科学与工程学科于 1998 年获批硕士学位授予权。学科立足国家发展战略，积极服务于行业和京津冀协同发展。在管理科学及决策理论与方法、信息管理与信息系统、物流与供应链管理、大数据与食品安全管理等学科方向取得丰硕研究成果，形成了显著的特色和优势。尤其是在食品、农产品大数据分析以及安全风险评估、预警、追溯等领域，构建了食品安全监管重点品种风险评估和研判模型库及重点品种风险评估和决策支持系统，建立了重点食品安全风险监测分析挖掘、评估决策综合信息平台，为食品安全电子溯源提供共性技术支撑，填补了我国食品安全抽检监测信息系统研究的空白。学科拥有“农产品质量安全追溯技术及应用国家工程实验室”1 个国家级科研平台，“食品安全大数据技术北京市重点实验室”“北京市高等学校实验教学示范中心”“北京市校外人才培养基地”3 个市级教学科研平台。近 5 年主持国家科技重点研发计划项目（课题）7 项，国家自然科学基金和社科基金项目 36 项，其他科研项目 197 项。

管理科学与工程学科主要的研究方向包括：

1.管理科学及决策理论与方法

管理科学及决策理论与方法是应用逻辑推理、定量分析、实证研究等科学方法，为研究和解决各类管理问题提供基础理论、方法与技术支撑的学科。该方向主要包括管理科学和管理思想史，一般管理理论与研究方法论，优化理论与方法，决策理论与方法，博弈论，金融风险管理技术与方法等研究领域。本方向在金融风险管理领域已经获得了大量的研究成果，包括金融风险的识别、度量和控制等，能够对金融风险进行有效识别、精确度量和严格控制。

2.信息管理与信息系统

信息管理与信息系统方向主要研究企业信息管理、系统资源优化管理、决策支持系统和项目管

理，重点围绕“互联网+”时代下的系统资源优化管理、企业运营管理、商业智能决策，研究利用数据科学与信息管理理论与方法，实现群体智能、大数据、物联网等现代信息技术在具体产业上的应用。本方向面向国家和北京市需求承担了一批重大重点科研任务；面向商业领域，形成了信息管理理念与技术的落地应用，在学界与业界形成了一定的影响力。

3.大数据与食品安全管理

大数据与食品安全管理方向致力于基于大数据技术的食品安全管理领域的数据获取融合、存储管理、分析挖掘、以及可视化等理论与方法的研究，建立食品安全风险评估、预测预警、决策支持等管理模型，实现食品及其添加剂中的危害识别、危害特征描述、暴露评估、风险特征描述等食品安全相关技术。本方向面向国家和北京市需求承担了多项重大重点科研项目，填补了我国食品安全抽检监测信息系统研究方面的空白。

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。

四、课程设置与学分要求

来华留学生的课程设置，汉语和中国概况应作为必修课；要加强中文能力的训练，“中文授课的硕士留学生、博士留学生毕业时中文能力应当达到《国际汉语能力标准》五级水平，全英文授课的硕士留学生、博士留学生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”。研究生汉语课程实行年级教学：研究生一年级学生预设零基础班级和非零起点班级，零基础班级在春秋两季分别完成 HSK1 和 HSK2 的教学，非零起点班级视学生水平进行教学，每学期授课学时为 96 学时，6 学分；研究生二年级学生预设 3 春秋两季完成 HSK3 的教学，每学期授课学时为 64 学时，4 学分。若学生已通过汉语水平考试，可申请免修相应等级的汉语课程。

课程类别	学分要求	课程类别	学分要求
公共课	10	基础课	8
专业课	8	选修课	≥8
必修环节	2	总学分	≥36

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	I010102	中国概况	2	32	1	必修
	I070107	汉语（四级）上	2	32	1	必修
	I070108	汉语（四级）下	2	32	2	必修
	I070109	汉语（五级）上	2	32	3	必修
	I070110	汉语（五级）下	2	32	4	必修
	应修		10 学分			

基础课	A090301	算法分析与程序设计	2	32	1	必修
	A090302	高级运筹学	2	32	2	必修
	A090303	数据库理论与技术	2	32	1	必修
	A090304	现代网络技术	2	32	1	必修
	应修		8 学分			
专业课	A180111	深度学习	2	32	2	必修
	A180112	建模与仿真	2	32	1	必修
	A090307	商务智能	2	32	2	必修
	A090309	管理对策论	2	32	1	必修
	应修		8 学分			
选修课	A090310	统计分析方法与应用	2	32	2	选修
	A180113	自然语言处理与语义计算	2	32	1	选修
	A180114	区块链技术	2	32	2	选修
	A180115	机制设计	2	32	2	选修
	A180116	时间序列分析	2	32	1	选修
		跨学科选修课（导师指定）	2	32		必选
	应修		≥8 学分			
补修课		管理信息系统				
		程序设计语言				
课程总学分要求			≥34 学分			

五、授课语言

中文

六、必修环节（2 学分）

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。

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。

七、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（试行）》。

八、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、适用学科或专业学位（领域）、先修课程、主要教学内容和学时分配、参考文献等。

Postgraduate Program of ManagementScience and Engineering (Engineering)

1. Training Objectives

Master solid basic theories and systematic specialized knowledge of the subject, have the ability of independently engaging in operation and management and independently undertaking specialized technical work, and have high comprehensive quality, innovation and entrepreneurship spirit. Understand the development of the subject at home and abroad. Be able to correctly use quantitative methods and modern information technology to solve theoretical and practical problems in the field of management. International students should be familiar with China's history, geography, society, economy and other basic knowledge of China's national conditions and culture. Also, international students should understand political system, national policy, mainstream social values, and public morality of China, and form the concept of observing Chinese laws and disciplines.

2. Overview of the Program

Management science and engineering is a first-level discipline of management (there is no second-level discipline in this discipline). Management science and engineering is a discipline that applies engineering and technical science, mathematics, system science and social science knowledge to design, evaluate, make decisions, improve, implement and control various systems composed of personnel, materials, equipment, technology, energy and information in order to achieve management goals.

The discipline of Management Science and Engineering of BTBU was authorized to confer master degree in 1998. Based on the national development strategy, the discipline actively serves the industry and the coordinated development of Beijing, Tianjin and Hebei. Rich research results have been achieved in research fields of management science and decision-making theory and method, information management and information system, logistics and supply chain management, big data and food safety management and other disciplines, forming a significant characteristics and advantages. Especially in the fields such as big data analysis, safety risk assessment, early warning, traceability of food and agricultural products, our discipline has built a risk assessment and analysis model library for key varieties in food safety supervision and a risk assessment and decision support system of key varieties. A comprehensive information platform for key food safety risk monitoring, analysis, mining, evaluation and decision making has also been established to provide generic technical support for food safety electronic traceability, filling the blank of China's food safety sampling inspection and monitoring information system research. Our discipline has a national scientific research platform of “National Engineering Laboratory for Agri-product Quality Traceability”, and 3 municipal teaching and research platforms including “Beijing Key Laboratory of Big Data Technology for Food Safety”, “Beijing Experimental Teaching Demonstration Center of Higher Education” and “Beijing Off-campus Talent Training Base”. In recent 5 years, teachers in our discipline have hosted 7 projects funded by National Key R&D Program of China, 36 projects funded by the National Natural Science Foundation and Social Science Foundation, and 197 other research projects.

The main research areas of Management Science and Engineering include:

(1) Management science and decision-making theory and method

Management science and decision-making theory and method is a discipline that apply logical reasoning, quantitative analysis, empirical research, and other scientific methods to provide basic theories, methods, and technical support for researching and solving various management problems. This research direction includes management science and history of management thought, general management theory and research methodology, optimization theory and method, decision theory and method, game theory, financial risk management technology and method and other research fields. A lot of research results has been achieved of this research direction in the field of financial risk management, including the identification, measurement, and control of financial risks, which can effectively identify, accurately measure and strictly control financial risks.

(2) Information management and information system

Information management and information system mainly studies enterprise information management, system resource optimization management, decision support system and project management. Focusing on the system resource optimization management, enterprise operation management and business intelligence decision-making in the era of "Internet plus", the research direction studies the application of modern information technologies such as swarm intelligence, big data and Internet of Things in specific industries by using data science and information management theories and methods. This direction has undertaken a number of major key scientific research tasks for the needs of the country and Beijing. For the commercial field, it has formed the landing application of information management concepts and technologies, and has formed a certain influence in the academic and industry.

(3) Big data and food safety management

Big data and food safety management is devoted to the research of theories and methods of data acquisition and fusion, storage management, analysis and mining, and visualization in the field of food safety management based on big data technology. It is also devoted to the establishment of food safety risk assessment, prediction and early warning, decision support and other management models, as well as the realization of food and additives in the hazard identification, hazard characterization, exposure assessment, risk characterization and other food safety related technologies. This direction has undertaken a number of major and key scientific research projects for the needs of the country and Beijing, filling the gaps in the research of China's food safety sampling inspection and monitoring information system.

3. Length of Schooling

The academic postgraduate program lasts 3 years, and the maximum length of study is 5 years.

4. Curriculum and Credits Requirements

The Chinese curriculum is compulsory courses for international students. "The international master's and doctoral student applying curriculum based on Chinese environment should acquire HSK5 at graduation. The international master's and doctoral student applying curriculum based on Chinese environment should acquire HSK3 at graduation." The Chinese courses are set for beginners and intermediate learners separately. The class for beginners completes the teaching of HSK1 and HSK2,

respectively, in spring and autumn. The class for intermediate learners sets the content according to the specific situation of students. For the first year, the Chinese courses are designated as 96 class hours and 6 credits each semester. In the second year, graduate students are supposed to achieve HSK3 in spring and autumn, with 64 class hours and 4 credits per semester. The student can apply for exemption from Chinese courses by providing the certifications to prove their Chinese lever.

Course Classification	Credits required	Course Classification	Credits required
Public Courses	10	Basic Courses	8
Major Core Courses	8	Major Optional Courses	≥8
Compulsory Courses	2	Total Credits	≥36

Course Classification	Course Code	Course Name	Credit	Course Hours	Semester	Compulsory/ Optional
Public Courses	I010102	Chinese Culture	2	32	1	Compulsory
	I070107	HSK（Level Ⅳ）A	2	32	1	Compulsory
	I070108	HSK（Level Ⅳ）B	2	32	2	Compulsory
	I070109	HSK（Level Ⅴ）A	2	32	3	Compulsory
	I070110	HSK（Level Ⅴ）B	2	32	4	Compulsory
	Credits Requirement		10 Credits			
Basic Courses	A090301	Algorithm analysis and programming	2	32	1	Compulsory
	A090302	Advanced operations research	2	32	2	Compulsory
	A090303	Database theory and technology	2	32	1	Compulsory
	A090304	Modern network technology	2	32	1	Compulsory
	Credits Requirement		8 Credits			
Major Core Courses	A180111	Deep learning	2	32	2	Compulsory
	A180112	Modeling and simulation	2	32	1	Compulsory
	A090307	Business intelligence	2	32	2	Compulsory
	A090309	Management game theory	2	32	1	Compulsory
	Credits Requirement		8Credits			

Major Optional Courses	A090310	Statistical analysis method and application	2	32	2	Optional
	A180113	Natural language processing and semantic computing	2	32	1	Optional
	A180114	Blockchain technology	2	32	2	Optional
	A180115	Mechanism design	2	32	2	Optional
	A180116	Time series analysis	2	32	1	Optional
		Interdisciplinary elective courses (Designated by supervisor)	2	32		Compulsory
	Credits Requirement		≥8 Credits			
Remedial Courses		Management information system				
		Programming language				
Total Credits			≥34 Credits			

5. Teaching Language

Chinese.

6. Practice Part

(1) Academic activities (1 credit)

Academic activities include attending domestic and international academic conference, academic forum, academic report and giving oral presentation.

(2) Professional practice (1 credit)

The practical learning of international students should meet the professional requirements and be combined with their career planning, which aims to meet the needs of international talent training.

7. Dissertation and Related Work

The dissertation process for international graduate students includes the thesis proposal, the mid-term inspection, the verification of scientific research achievements, the inspection of repetition rate of dissertation, the anonymous evaluation of dissertation, and the final defense. Please refer to the following documents for detailed requirements. <Administrative measures for dissertation of professional master's degreein Beijing technology and business university>, < Guidelines for doctoral and master’s degree awarding of intonational student in Beijing technology and business university(for trial implementation)>.

8. Course Syllabus

The course syllabus includes course code, course title, class hours, credits, teaching objectives, teaching methods, assessment methods, applicable subjects, advanced courses, main teaching content and class hour assignment, references, etc.

电子信息（计算机技术）硕士留学研究生培养方案

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。

1. 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。

2. 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。

3. 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。

二、学科简介与研究方向

学科包括以下研究方向：

1. 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。

2. 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。

3. 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。

4. 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。

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。

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。		

表 1 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	I010102	中国概况	2	32	1	必修
	I070111	汉语（一级）	4	64	1	必修
	I070112	汉语（二级）	4	64	2	必修
	I070113	汉语（三级）	4	64	3	必修
		应修	14 学分			
基础课	PI160303	高级计算机图形学	2	32	3	必修
	PI150403	高级计算机网络	2	32	1	必修
	PI160301	机器学习	2	32	2	必修
		应修	6 学分			

专业课	PI160306	大数据处理技术	2	32	2	必修
	PI150404	物联网技术与信息融合	2	32	2	必修
	PI160310	数据科学与工程	2	32	3	必修
		应修	6 学分			
选修课	PI160302	数据库与数据挖掘	2	32	1	选修
	PI150409	Python 编程训练	2	32	1	选修
	PI150408	深度学习	2	32	2	选修
	PI160304	计算机科学前沿	2	32	3	必选
	PI160307	信息可视化技术	2	32	3	选修
	PI160308	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			

五、授课语言

英文

六、必修环节

1. 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。

2. 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。

七、培养环节及学位论文

1. 学位论文选题

硕士学位论文选题应直接来源于电子信息（计算机技术）领域生产实际或者具有明确的工程背景和应用价值，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。

2. 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、主要理论（技术）难题及拟解决方案等。开题报告应在学科范围内公开宣讲，并广泛征求意见。

3. 学位论文中期检查

学位论文中期检查应在第四学期完成。

4. 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，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》。学位论文如用英文撰写，必须要有中文摘要。

5. 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，答辩实行末位监控制度，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》。

八、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。

Electronic Information (Computer Technology)

Master of Computer Technology for International Students

1. Training Target

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.

2. Overview of the Program

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.

3. Length of Schooling

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

4. Description of Total Credits and Curriculums

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

Course Classification	Course Code	Course Name	Credits	Course Hours	Semester	Compulsory/ Optional
Public Course	I010102	Chinese Culture	2	32	1	Compulsory
	I070111	HSK (Level I)	4	64	1	Compulsory
	I070112	HSK (Level II)	4	64	2	Compulsory
	I070113	HSK (Level III)	4	64	3	Compulsory
	Credits Requirement		14 Credits			
Basic Courses	PI160303	Advanced Computer Graphics	2	32	3	Compulsory
	PI150403	Advanced Computer Networks	2	32	1	Compulsory
	PI160301	Machine Learning	2	32	2	Compulsory
	Credits Requirement		6 Credits			
Discipline Core Course	PI160306	Big Data Processing	2	32	2	Compulsory
	PI150404	Internet of Things and information fusion	2	32	2	Compulsory
	PI160310	Data Science and Engineering	2	32	3	Compulsory
	Credits Requirement		6 Credits			
Major Optional Course	PI160302	Database and Data Mining	2	32	1	Optional
	PI150409	Python Programming Training	2	32	1	Optional
	PI150408	Deep Learning	2	32	2	Optional
	PI160304	Computer Science Frontier	2	32	3	Compulsory
	PI160307	Information Visualization	2	32	3	Optional
	PI160308	Academic Writing	1	16	4	Optional
	Credits Requirement		≥4 Credits			
Total Credits			≥30 Credits			

5. Teaching Language

English

6. Compulsory Part

(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.

7. The Dissertation Related Work

Degree thesis is the 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 electronic information (computer technology), or technical problems or scientific research projects that have a clear engineering 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 base 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, the main theory (technical) problems 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, and a monitoring system for low-ranked thesis will be maintained. More details can be found in “Working rules of University Master's degree awarded by Beijing Technology and Business University”.

8. Course 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.

电子信息（控制工程）硕士留学研究生培养方案

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。

1．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。

2．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。

3．具有团队合作精神和诚信意识，具有创新精神和创新能力。

二、学科简介与研究方向

电子信息（控制工程）学科是以工程领域的控制系统为主要对象，采用现代数学方法和计算机技术，研究系统的建模、分析、控制、设计和实现的理论、方法和技术；是满足和实现现代工业、农业以及其他社会经济等领域日益增长的自动化、智能化需求的重要的工程领域。

1.系统智能控制技术

针对工业生产、环境安全、物流系统中的关键测控技术问题，综合运用智能控制技术、物联网技术、多传感器信息融合技术，研究智能化测量、智能分析的理论和方法。

2．计算机应用技术

针对实际复杂系统的数据处理与分析问题，综合运用计算机和网络的相关理论和技术，研究网络信息技术与人工智能技术相融合，数据库与数据挖掘技术、图像处理等技术。

三、学制和学习年限

采用全日制学习方式，学制 3 年，最长修业年限 5 年。

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
	I010102	中国概况	2	32	1	必修
	I070111	汉语（一级）	4	64	1	必修
	I070112	汉语（二级）	4	64	2	必修
	I070113	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	PI150401	控制系统仿真及应用	2	32	1	3 选 2
	PI150403	高级计算机网络	2	32	1	
	PI150402	线性控制系统	2	32	2	
	应修		≥4 学分			
专业课	PI160301	机器学习	2	32	2	必修
	PI150404	物联网技术与信息融合	2	32	2	必修
	PI150405	智能控制技术	2	32	2	必修
	应修		6 学分			
选修课	PI160302	数据库与数据挖掘	2	32	1	6 选 3
	PI150409	python 编程训练	2	32	1	
	PI160308	科技论文写作	2	32	3	
	PI160306	大数据处理技术	2	32	2	
	PI150408	深度学习	2	32	2	
	PI150406	图像工程	2	32	2	
	应修		≥6 学分			
课程总学分要求			≥30 学分			

五、授课语言

英文

六、必修环节（2 学分）

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。

2.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。

七、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》。

八、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。

Electronic Information (Control Engineering) Master of International Postgraduate Training Program

1.Training Target

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.

2.Overview of the Program

Focusing on control systems in the field of engineering, the discipline of electronic information (control engineering) is the theory, methods, and techniques of modeling, analysis, control, design, and implementation of research systems based on modern mathematical methods and computer technology. It is an important engineering field that meets and realizes the increasing demands for automation and intelligence in modern industry, agriculture, and other social and economic fields. The main research interests include but not limited to the following aspects:

1) System intelligent control technology: Aiming at the critical measurement and control technology problems in industrial production, environmental safety, and logistics systems, comprehensively using intelligent control technology, Internet of Things technology, and multi-sensor information fusion technology to study the theory and methods of intelligent measurement and intelligent analysis to solve Current research hot-spots in the fields of industrial production, environmental safety, and logistics measurement and control.

2) Computer application technology: Aiming at the data processing and analysis problems of actual complex systems, comprehensively using the relevant theories and techniques of computers and networks,

combining network information technology and artificial intelligence technology, and solving practical problems based on database and data mining technology, image processing and other technologies System data processing and analysis problems.

3. Length of Schooling

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

Curriculum and Credits Requirements

Table 1 Description of total credits

Course Classification	Credits Requirement	Course Classification	Credits Requirement
Public Course	14	Basic Courses	≥4
Discipline Core Course	6	Discipline Core Course	≥6
Compulsory	2	Total Credits	≥32

Table 2 Curriculum and credit requirements

Course Classification	Course Code	Course Name	Credits	Course Hours	Semester	Compulsory/ Optional
Public Course	I010102	Chinese Culture	2	32	1	Compulsory
	I070111	HSK（Level Ⅰ）	4	64	1	Compulsory
	I070112	HSK（Level II）	4	64	2	Compulsory
	I070113	HSK（Level III）	4	64	3	Compulsory
	Credits Requirement		14 Credits			
Basic Course	PI150401	Simulation and Application of Control System	2	32	1	Select 2 courses from 3 courses
	PI150403	Advanced Computer Networks	2	32	1	
	PI150402	Linear Control System	2	32	2	
	Credits Requirement		≥4 Credits			
Discipline Core Course	PI160301	Machine Learning	2	32	2	Compulsory
	PI150404	Internet of Things and information fusion	2	32	2	Compulsory
	PI150405	Intelligent Control Technology	2	32	2	Compulsory
	Credits Requirement		6 Credits			
Major Optional Course	PI160302	Database and Data Mining	2	32	1	Select 3 courses from 6 courses
	PI150409	Python Programming Training	2	32	1	
	PI160308	Science and Technology Essay Writing	2	32	3	

	PI160306	Big data processing	2	32	2	
	PI150408	Deep Learning	2	32	2	
	PI150406	Image Engineering	2	32	2	
	Credits Requirement		⩾6 Credits			
Total Credits			⩾30 Credits			

5. Teaching Language

English

6. Compulsory courses (2 credits)

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.

7. Training link and 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).

8. Course 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.

电子信息（人工智能）硕士留学研究生培养方案

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。

1．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。

2．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。

3．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。

二、学科简介与研究方向

电子信息（人工智能）学科是以智能系统为主要对象，采用计算机技术和数学方法研究系统的建模与控制、智能处理与分析、工程设计和实现的理论、方法和技术，实现现代工业、农业以及其他社会经济等领域智能化和自动化。

1. 人工智能理论和方法

针对实际复杂无人智能系统的信息处理问题，综合运用神经网络、深度学习、图像处理等人工智能、大数据处理技术，研究模式识别、机器学习的工程实现方法。

2. 人工智能应用技术

针对工业生产、环境安全、物流系统中的关键测控技术问题，综合运用智能控制技术、物联网技术、多传感器信息融合技术，研究智能化测量、智能分析的理论和方法。

三、学制和学习年限

采用全日制学习方式，学制 3 年，最长修业年限 5 年。

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	I010102	中国概况	2	32	1	必修
	I070111	汉语（一级）	4	64	1	必修
	I070112	汉语（二级）	4	64	2	必修
	I070113	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	PI150114	模式识别与神经网络	2	32	1	必修
	PI160301	机器学习	2	32	2	必修
	应修		4 学分			
专业课	PI150408	深度学习	2	32	2	必修
	PI150404	物联网技术与信息融合	2	32	2	必修
	PI150403	高级计算机网络	2	32	1	必修
	应修		6 学分			
选修课	PI160302	数据库与数据挖掘	2	32	1	6 选 3
	PI150409	python 编程训练	2	32	1	
	PI150401	控制系统仿真及应用	2	32	1	
	PI160306	大数据处理技术	2	32	2	
	PI150405	智能控制技术	2	32	2	
	PI150406	图像工程	2	32	2	
	应修		≥6 学分			
课程总学分要求			≥30 学分			

五、授课语言

英文

六、必修环节（2 学分）

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。

2.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。

七、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》。

八、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。

Electronic Information (Artificial Intelligence) Master of International Postgraduate Training Program

1.Training Target

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.

2.Overview of the Program

Focusing on intelligent systems, the subject of electronic information (artificial intelligence) adopts computer technology and mathematical methods to study the theories, methods, and technologies of system modeling and control, intelligent processing and analysis, engineering design, and implementation; realize the intelligence and automation of modern industry, agriculture and other social and economic fields. The main research interests include but not limited to the following aspects:

1) Artificial intelligence theory and methods: For the information processing problems of actual complex unmanned intelligent systems, comprehensively use artificial intelligence and big data processing technologies such as neural networks, deep learning, and image processing to study the engineering implementation methods of pattern recognition and machine learning.

2) Artificial intelligence application technology: Aiming at the critical measurement and control technology problems in industrial production, environmental safety, and logistics systems, comprehensively

use intelligent control technology, Internet of Things technology, and multi-sensor information fusion technology to study the theory and method of intelligent measurement and intelligent analysis.

3. Length of Schooling

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

Curriculum and Credits Requirements

Table 1 Description of total credits

Course Classification	Credits Requirement	Course Classification	Credits Requirement
Public Course	14	Basic Courses	4
Discipline Core Course	6	Discipline Core Course	≥6
Compulsory	2	Total Credits	≥32

Table 2 Curriculum and credit requirements

Course Classification	Course Code	Course Name	Credits	Course Hours	Semester	Compulsory/ Optional
Public Course	I010102	Chinese Culture	2	32	1	Compulsory
	I070111	HSK（Level Ⅰ）	4	64	1	必修
	I070112	HSK（Level II）	4	64	2	必修
	I070113	HSK（Level III）	4	64	3	必修
	Credits Requirement		14 Credits			
Basic Courses	PI150114	Pattern Recognition and Neural Networks	2	32	1	Compulsory
	PI160301	Machine Learning	2	32	2	Compulsory
	Credits Requirement		4 Credits			
Discipline Core Course	PI150408	Deep Learning	2	32	2	Compulsory
	PI150404	Internet of Things and information fusion	2	32	2	Compulsory
	PI150403	Advanced Computer Networks	2	32	1	Compulsory
	Credits Requirement		6 Credits			
Major Optional Course	PI160302	Database and Data Mining	2	32	1	Select 3 courses from 6 courses
	PI150409	Python Programming Training	2	32	1	
	PI150401	Simulation and Application of Control System	2	32	1	
	PI160306	Big data processing	2	32	2	
	PI150405	Intelligent Control Technology	2	32	2	
	PI150406	Image Engineering	2	32	2	

	Credits Requirement	⩾6 Credits
Total Credits		⩾30Credits

5. Teaching Language

English

6. Compulsory courses (2 credits)

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.

7. Training link and 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).

8. Course 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.

机械（机械工程）硕士留学研究生培养方案

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。

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 53 人，其中教授 9 人，副教授 33 人，硕士生导师 34 人，48 名教师具有博士学位，占比 90.6%。

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。

1. 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。

2. 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。

3. 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。

4. 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反求、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。

5. 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。

6. 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。

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。

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	I010102	中国概况	2	32	1	必修
	I070111	汉语（一级）	4	64	1	必修
	I070112	汉语（二级）	4	64	2	选修
	I070113	汉语 （三级）	4	64	3	必修
	应修		14 学分			
基础课	PI150101	弹性力学	2	32	1	3 选 2
	PI150102	精密测量与测试技术	2	32	1	
	PI150103	机电控制技术	2	32	1	
	应修		≥4 学分			

专业课	PI150104	有限元分析	2	32	2	4 选 2
	PI150105	机器人机构学	2	32	2	
	PI150106	嵌入式计算机控制技术	2	32	2	
	PI150107	机械工程信号处理	2	32	2	
	应修		≥4 学分			
选修课	PI150108	食品机械与工程	2	32	1	6 选 3
	PI150109	食品装备与过程控制	2	32	1	
	PI150110	计算机辅助设计与制造	2	32	2	
	PI150111	现代制造工程	2	32	2	
	PI150112	智能机器人技术	2	32	2	
	PI150113	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。

五、授课语言

英文。

六、必修环节（2 学分）

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，或在学科内做学术演讲等。

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”，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。

七、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》。

八、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。

Master of International Mechanical Program

1.Training Target

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.

2.Overview of the Program

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.

3. Length of Schooling

The length of study is three years, and cannot exceed five years.

4. Curriculum and Credits Requirements

Course Classification	Credit Requirement	Course Classification	Credit requirement
Public Course	14	Basic Courses	≥4
Discipline Core Course	≥4	Major Optional Course	≥6
Compulsory Link	2	Total Credits	≥30

Course Classification	Course Code	Course Name	Credits	Course Hours	Semester	Compulsory/ Optional
Public Course	I010102	Chinese Culture	2	32	1	Compulsory
	I070111	HSK(Level I)	4	64	1	Compulsory
	I070112	HSK(Level II)	4	64	2	Compulsory
	I070113	HSK(Level III)	4	64	3	Compulsory
	Credits Requirement		14 Credits			
Basic Courses	PI150101	Elastic Mechanics	2	32	1	Select two courses from three courses
	PI150102	Technology of Precise Measurement & Testing	2	32	1	
	PI150103	Technology of Electromechanical Control	2	32	1	
	Credits Requirement		≥4 Credits			
Discipline Core Course	PI150104	Finite Element Analysis	2	32	2	Select two courses from four courses
	PI150105	Mechanism of Robot	2	32	2	
	PI150106	Control Technology of Embedded Computer	2	32	2	
	PI150107	Signal Processing in Mechanical Engineering	2	32	2	
	Credits Requirement		≥4 Credits			
Major Optional Course	PI150108	Food Machinery & Engineering	2	32	1	Select three courses from six courses
	PI150109	Food Equipment & Process Control	2	32	1	
	PI150110	CAD&CAM	2	32	2	
	PI150111	Modern Manufacturing Engineering	2	32	2	
	PI150112	Technology of Intelligent Robot	2	32	2	
	PI150113	Vibration and Modal Analysis	2	32	2	
	Credits Requirement		≥6 Credits			
Total Credits			≥28 Credits			

5. Teaching Language

English

6. Required Part

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.

7. The Dissertation Related Work

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 "Administrative Measures for Doctoral Degree Thesis of Beijing Technology and Business University" and "Working Rules for the Awarding of Doctoral and Master Degrees of Beijing International Business University for Studying in China (Trial)".

8. Course Syllabus

The course syllabus includes course code, course name, class hours, credits, teaching objectives, teaching methods, assessment methods, applicable disciplines and specialties, prerequisite courses, main teaching contents and class hour distribution, references, etc.

人文社科学部

法学院

法律（法学）硕士留学研究生培养方案

授予学位类别：法律

专业学位类别代码及名称：0351 法律

专业学位领域代码及名称：035102 法律（法学）

制订单位：法学院

一、培养目标

掌握法学基本原理，具备从事涉外法律职业所要求的中国法律知识、法律术语、法律思维、法律方法和职业技术。能综合运用法律和其他专业知识，具备独立从事涉及中国法的法律事务，并具有在有关国际组织中从事法律事务工作的能力。

二、学科简介与研究方向

北京工商大学的法学学科已有 30 年的发展历史。法学院现设有民商法学系、经济法学系、国际法学系、诉讼法学系、理论法学与刑事法学系。在学院的成长发展过程中，始终注重建设具有自身特色的学科。在教学手段与内容、科学研究、人才培养等方面形成了较为明显的特色。法学学科在法学专业实践教学方面进行了一系列探索，取得了较好的成绩和效果，同时形成了民法学、商法学、知识产权法学、金融财税法、市场竞争法、涉外经济法、刑法学、民事诉讼法学等稳定的研究方向。

研究方向为中国法方向，学习掌握中国法重点基础课程，包括中国法概论、法律与规制等基础理论课程，民法、刑法、知识产权法、竞争法、税法、国际私法、国际税法等实体法课程，以及中国商事争议解决、刑事诉讼与证据法等程序法课程。重视培养学生的中国法理论知识与实务能力，以及具备从事法律职业所要求的法律知识、思维习惯、法律方法和职业技术；能综合运用法律和其他专业知识，具有独立从事法律职业实务工作的能力。

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。

四、学分要求

课程部分	课程类别	学分要求
	公共课	14
	基础课	15
	专业课	8
	选修课	7
实践必修环节		2
学位论文		5
总学分		51

五、课程设置

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	I010102	中国概况	2	32	1	必修
	I070111	汉语（一级）	4	64	1	必修
	I070112	汉语（二级）	4	64	2	必修
	I070113	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	PI050101	中国法概论 Concise Chinese Law	3	48	1	必修
	PI050108	法律与规制 Law and Regulation	3	48	1	必修
	PI050102	民法 Civil Law	3	48	2	必修
	PI050109	刑法 criminal law	3	48	2	必修
	PI050104	中国商事争议解决 Commercial Dispute Resolution in China	3	48	3	必修
	应修		15 学分			
专业课	PI050105	知识产权法 Intellectual Property Law	2	32	2	必修
	PI050110	税法 Tax Law	2	32	2	必修
	PI050107	竞争法 Competition law	2	32	3	必修
	PI050106	国际私法 Private International Law	2	32	3	必修
	应修		8 学分			
选修课	PI050111	国际税法 International Tax Law	2	32	3	必选
	PI050112	刑事诉讼与证据法 Criminal Procedural and Evidence Rule	2	32	3	必选
	PI050113	国际经济法 International Economic Law	3	48	3	必选
	应修		7 学分			
课程总学分要求			44 学分			

说明：具体要求参照同学历层次国内生相应要求。

六、授课语言

英文

七、必修环节（2 学分）

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、国内学术会议上做口头报告

等，或者撰写两篇案例研究报告。

2.专业实践（1 学分）

专业实习：专业实习至少 3 个月；或者观摩案件办理 2 件。

八、培养环节及学位论文（5 学分）

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》、《北京工商大学关于博士、硕士学位授予工作实施细则》。

法律硕士学位论文应以法律实务研究为主要内容，但不限于学术论文的成果形式。学位论文的写作均应规范，字数不少于 2 万字。

1．学位论文选题：应在第二学期结束前完成。学位论文选题应贯彻理论联系实际的原则，论文内容应着眼实际问题、面向法律事务、深入法学理论。重在反映学生运用一定的理论与知识综合解决法律实务中的理论和实践问题的能力。导师组应根据学生的选题方向，确定具体的导师负责其论文的指导工作。

2．学位论文开题：应在第二学期结束前或第三学期初完成。

3．学位论文中期检查：应在第三学期末完成。

4．学位论文评阅与答辩：学位论文经过文字重复率检测合格后进行匿名评审和答辩。

5．学位论文的写作与装订，应按《北京工商大学硕士学位论文写作规范》要求进行。

九、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。

The Juris Master (JM) Program in Chinese Law

1.Training Target

Master the basic principles of law, having the knowledge of Chinese law, legal terminology, legal thinking, legal methods and professional skills required to engage in foreign-related legal profession. Capable of applying legal and other professional knowledge in a comprehensive manner, capable of independently engaging in legal affairs involving Chinese law and capable of engaging in legal affairs in relevant international organizations.

2.Overview of the Program

The discipline of law in Beijing Technology and Business University has a history of 30 years. The School of Law now has departments of Civil and Commercial Law, Economic Law, International Law, Procedural Law, Theoretical Law and Criminal Law. In the course of its growth and development, the School has always paid attention to the construction of its own characteristic disciplines. In teaching means and content, scientific research, talent training and other aspects of the formation of more obvious characteristics. The discipline of law has made a series of explorations in the practical teaching of law major, and achieved good results and effects. Meanwhile, it has formed a stable research direction, such as civil law, business law, intellectual property law, finance and tax law, market competition law, foreign economic law, criminal law, civil procedure law and so on.

Direction of the program is the Chinese law. The students shall learn to master Chinese law foundation courses, including Concise Chinese law, Law and Regulation and other basic theory course, including substantive law courses, such as the Civil Law, Criminal Law, Intellectual Property Law and Competition Law, Tax Law, Private International Law, International Tax Law and also including procedural law courses,such as China's Commercial Dispute, Criminal Proceedings and Evidence Law. Emphasis should be placed on cultivating students' theoretical knowledge and practical ability of Chinese law, as well as legal knowledge, thinking habits, legal methods and professional skills required for legal profession. Be able to use legal and other professional knowledge comprehensively, have the ability to be engaged in legal professional practice independently.

3. Length of Schooling

This program is full-time. The study duration of the program is 2 years. The maximum duration for the acquisition of the degree is four years.

4. Curriculum and Credits Requirements

Course Classification	Course Code	Course Name	Credits	Course Hours	Semester	Compulsory/ Optional
Public Course	I010102	Chinese Culture	2	32	1	Compulsory
	I070111	HSK（Level Ⅰ）	4	64	1	Compulsory
	I070112	HSK（Level Ⅱ）	4	64	2	Compulsory
	I070113	HSK（Level Ⅲ）	4	64	3	Compulsory
	Credits Requirement		14 Credits			

Basic Courses	PI050101	Concise Chinese Law	3	54	1	Compulsory
	PI050108	Law and Regulation	3	54	1	Compulsory
	PI050102	Civil Law	3	54	2	Compulsory
	PI050109	Criminal law	3	54	2	Compulsory
	PI050104	Commercial Dispute Resolution in China	3	54	3	Compulsory
	Credits Requirement		15 Credits			
Discipline Core Course	PI050105	Intellectual Property Law	2	36	2	Compulsory
	PI050110	Tax Law	2	36	2	Compulsory
	PI050107	Competition law	2	36	3	Compulsory
	PI050106	Private International Law	2	36	3	Compulsory
	Credits Requirement		8 Credits			
Major Optional Course	PI050111	International Tax Law	2	36	3	Compulsory optional
	PI050112	Criminal Procedural and Evidence Rule	2	36	3	Compulsory optional
	PI050113	International Economic Law	3	54	3	Compulsory optional
	Credits Requirement		7 Credits			
Total Credits			44Credits			

Note: The specific requirements shall refer to the corresponding requirements for domestic students at the same educational level.

5. Teaching Language

English

6. Practice Part（2 credits）

1. Academic Activities (1 credit)

This includes attending international and domestic academic conferences, academic forums, academic reports, making oral reports at international and domestic academic conferences, etc., or writing two case study reports.

2. Professional Practice (1 credit)

Professional internship: At least 3 months; Or observing the handling of 2 cases.

7. The Dissertation Related Work (5 credits)

In the training process of professional master degree students, relevant links and dissertation work include proposal defense, mid-term examination, review of scientific research results, paper repetition rate

detection, anonymous review and defense. For specific requirements, please refer to the "Administrative Measures for Professional Master's Degree Thesis 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》)", "Administrative Measures for Word Repetition Rate Detection of Professional Master's Degree Thesis of Beijing Technology and Business University(《北京工商大学研究生学位论文文字重复率检测管理办法》)", and "Implementation Rules of Beijing Technology and Business University on The Awarding of Doctoral and Master's Degrees(《北京工商大学关于博士、硕士学位授予工作实施细则》)".

A master's thesis shall focus on the research of practical legal matters. Academic writing is encouraged but not a necessity. The thesis shall meet the basic writing standards and the number of words included in the thesis shall be approximate 20,000 words.

1. Thesis Topic Selection： shall be submitted by the end of the second semester. The thesis topic shalladdress issues combined with theory and practice. The thesis content shall focus on solving practical matters, addressing legal affairs, and studying legal theories in-depth.The students are expected to use knowledge and wisdom comprehensively to develop a suitable research thesis. The supervisor group should determine the specific supervisor to be responsible for the guidance of his/her thesis according to the student's topic selection direction.

2. Thesis Proposal Defense: shall be arranged in the end of the second semester or in the beginning of the third semester.

3. In-Progress Inspection： shall be conducted by the end of the third semester.

4. Thesis Evaluation and Defense: The thesis that has gone through the plagiarismcheck is subject to blind review and oral defense.

5. Thesis writing and binding shall be referred to "The Master's Degree Thesis Writing Specifications of Beijing Technology and Business University《北京工商大学硕士学位论文写作规范》".

8. Course Syllabus

The syllabus includes course code, course name, class hours, credits, teaching objectives, teaching methods, assessment methods, applicable disciplines and majors, pre-requisite courses, main teaching contents and class hours allocation, references, etc.

语言与传播学院

新闻与传播硕士留学研究生培养方案

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：

1. 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。

2. 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。

3. 具备一定的国际化媒体运营、项目管理和团队协调能力。

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。

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。

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 43 学分：

（一）课程学分：必修课不低于 31 学分，包括公共课 22 学分、基础课 5 学分、专业课 4 学分；

（二）选修课程不低于 10 学分；

（三）学术活动 1 学分；

（四）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	I010102	中国概况	2	32	1	必修
	I070111	汉语（一级）	4	64	1	必修
	I070112	汉语（二级）	4	64	2	必修
	I070113	汉语（三级）	4	64	3	必修
	应修		14 学分			
基础课	PI070102	传播研究方法	3	48	1	必修
	PI070103	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	PI070104	新媒体研究	2	32	1	必修
	PI070101	跨文化传播	2	32	1	必修
	应修		4 学分			
选修课	PI070106	国际传播前沿	2	32	2	选修
	PI070107	广告前沿研究	2	32	2	选修
	PI070108	经济新闻实务	2	32	2	选修
	PI070109	品牌传播策划	2	32	2	选修
	PI070111	视听传播理论与实务	2	32	2	选修
	PI070112	城市文化传播	2	32	3	选修
	PI070113	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			

五、授课语言

英文。

六、必修环节（2 学分）

1.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。

2.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。

七、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》。

1.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。

2.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》。

3.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。

4.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。

5.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。

6.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。

八、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。

Professional Master Training Program in Journalism and Communication

I. Training Target

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 toconsolidate their knowledge of journalism and communication theory, be proficient in investigative research and communication skills, and can independently address various issuesin journalism and communication practice.

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

3.Students are required topolishtheir certain international media operations, project management and teamworkskills.

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.

III.Length of schooling

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.

IV. Curriculum and Credits Requirements

For graduate students applying for this professional degree, the total credits shall not be less than 43 credits.

1.The compulsory courses are not less than 31 credits, including 22 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 1 Curriculum and Credit Requirements for Professional Postgraduates in Journalism and Communication

Course Types	Credit	Course Types	Credit
Public	14	General course	5
Major course	4	Optional course	≥10
Compulsory	2	Total credits	≥35

Course Types	**Course Code**	**Course Name**	**Credit**	**Course Hours**	**Semester**	**Compulsory /Optional**
Public	I010102	Chinese Culture	2	32	1	Compulsory
	I070111	HSK（Level Ⅰ）	4	64	1	Compulsory
	I070112	HSK（Level Ⅱ）	4	64	2	Compulsory
	I070113	HSK（Level Ⅲ）	4	64	3	Compulsory
	Credits Requirement		14 Credits			
General	PI070102	Research Method of Communication	3	48	1	Compulsory
	PI070103	Policy, Regulations and Ethics of Journalism and Communication	2	32	1	Compulsory
	Credits Requirement		5 Credits			
Major	PI070104	New Media Studies	2	32	1	Compulsory
	PI070101	Cross-culture Communication	2	32	1	Compulsory
	Credits Requirement		4 Credits			
Optional	PI070106	Frontiers of International Communication	2	32	2	Optional
	PI070107	Frontier Research on	2	32	2	Optional

		Advertising Issues				
	PI070108	Economic News Practice	2	32	2	Optional
	PI070109	Brand Communication Planning	2	32	2	Optional
	PI070111	Theory and Practice of Audio-visual Communication	2	32	2	Optional
	PI070112	Urban culture communication	2	32	3	Optional
	PI070113	Crisis Communication	2	32	3	Optional
	Credits Requirement		⩾10 Credits			
Compulsory	Innovative Practice		1			Compulsory
	Professional Practice		1		3-4	Compulsory
	Credits Requirement		2 Credits			
Thesis	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

V. Teaching language

English.

VI. Compulsory courses (2credits)

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.

VII. The Thesis Related Work

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 defenseshall 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 the student independently under the guidance of the supervisor. The thesis should have a certain amount of workload. Thedissertation 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".

VIII. Course 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.