北京工商大学
留学研究生培养方案
（2021 年）

研究生院

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目　录

留学研究生培养方案总体框架要求及模板(2021 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（试行）》（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 96 学时，6 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
	I070103	汉语（一级）	6	96	1	必修
	I070104	汉语（二级）	6	96	2	必修
	I070105	汉语（三级）上	4	64	3	必修
	I070106	汉语（三级）下	4	64	4	必修
	应修		22 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			≥22 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（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。

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

培养理解食品科学与工程领域的历史、现状和发展动态，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，具备独立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	22	基础课	2
专业课	3	选修课	≥4
必修环节	2	总学分	**≥33**

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
	I070103	汉语（一级）	6	96	1	必修
	I070104	汉语（二级）	6	96	2	必修
	I070105	汉语（三级）上	4	64	3	必修
	I070106	汉语（三级）下	4	64	4	必修
	应修		22 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			
	DI020301	食品加工与开发	2	32	1	选修
	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		≥31 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

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 分以上。根据《北京工商大学期刊分级要目》，A1 论文为 2 分/篇，A2 论文为 1.5 分/篇，中文核心期刊及以上论文为 1 分/篇，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）的授权专利视同 1 篇中文核心期刊论文。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 Food Science and Engineering

1.Training Target

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 history, current situation and 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 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
	I070103	HSK（Level Ⅰ）	6	96	1	Compulsory
	I070104	HSK（Level Ⅱ）	6	96	2	Compulsory
	I070105	HSK（Level Ⅲ）A	4	64	3	Compulsory
	I070106	HSK（Level Ⅲ）B	4	64	4	Compulsory
	Credits Requirement		22 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	DI020301	Food Processing and Development	2	32	1	Optional
	DI020307	Food Quality Evaluation	2	32	1	Optional
	DI020306	Food Microbiology and Technology: Theory and	2	32	1	Optional

		Practice				
	Credits Requirement		⩾4 Credits			
Total Credits		⩾31 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. According to "Classification of Journals of Beijing Technology and Business University", a class A1 paper = 2 points; a class A2 paper = 1.5 points；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 1 point. 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.

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：工程硕士学位

专业类别代码名称：0860 生物与医药

专业领域名称：食品工程

制订单位：食品与健康学院

一、培养目标

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

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	22	基础课	2
专业课	4	选修课	≥4
必修环节	2	总学分	≥34
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
	I070103	汉语（一级）	6	96	1	必修
	I070104	汉语（二级）	6	96	2	必修
	I070105	汉语（三级）上	4	64	3	必修
	I070106	汉语（三级）下	4	64	4	必修
		应修	22 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	2	32	1	必修
	应修		4 学分			
选修课	DI020301	食品加工与开发	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
	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
	P020208	食品生物工程与技术转化	2	32	1	选修
	应修		≥4 学分			
课程总学分要求			≥32 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（试行）》。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，必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 分以上。论文发表要求以正式录用通知为准。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。

成果得分标准：

（1）发表 A1 论文一篇或授权国际发明专利一项计 2.0 分；

（2）发表 A2 论文一篇或授权国内发明或实用新型专利一项计 1.5 分，发表 A2 论文一篇或一项计 1.5 分；

（3）发表 A3 论文或食品学科中国科学引文数据库 (CSCD)收录期刊论文一篇计 1.0 分；

（4）完成与毕业研究相关的工程研究设计，设备（装置）研发设计，经学术委员会认定计 1.0 分。

注：A 级论文及分类依据《北京工商大学期刊分级要目》，食品学科 CSCD 收录期刊：食品科学，中国食品学报，食品科学技术学报，食品与生物技术学报，食品与发酵工业，中国食品卫生杂志，农业工程学报，生物工程学报

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

Degree: Professional Master of Food Engineering

Prima subject code: 0860 biology and medicine

Secondary subject code: Food Engineering

Prepared by: School of food and health

1.Training Target

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

2.1 Food additive and safety

This research area focus on the structure-function relationship, dose-response relationship and mechanism of food additive; study on the green production, application technology and safety evaluation of novel food additives; study the formation of hazardous substances, the general rule of control and control technology during the production of food additive, build the standardization system; study manufacture technology and safety evaluation of savory flavoring (including food degree hot processing flavoring).

2.2 Food processing technology

Based on gene engineering, enzyme engineering, fermentation engineering and other biotechnologies, this research focus on the study of food, food ingredient and the processing of food additives; study the fermentation technology, directional chemical modification technique, physical field reinforcement technique, high and innovative immersion technique, electromechanical integration technology and other novel techniques in the integrated application of food; study the flavor change and mechanism of food during food processing and storage; study the deep-processing techniques and resource exploitation and utilization of dairy product, grain and oil product, meat product, fruit and vegetable product and other subsidiary agricultural products.

2.3 Food quality and safety

This research area mainly focus on the influence of food processing and storage on food quality and safety; study food flavor chemistry and analysis technique; study the relationship between food ingredient and food quality along with intelligent evaluation of food quality; study food quality assurance system and its application; study the detection techniques for pesticide, veterinary drugs and other hazardous substance residue; study food pollution control technology.

2.4 Food nutrition

This area focus on human metabolism changes course, mechanism and characteristics; mainly study the relationship between food nutrition and health, improve chronic disease in the elderly by nutritional intervention; develop healthy food that is suitable for the nutritional requirements of our consumers according to dietary structures; study protein, peptide, animal and plant functional components, and relative processing techniques.）

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
	I070103	HSK（Level Ⅰ）	6	96	1	Compulsory
	I070104	HSK（Level Ⅱ）	6	96	2	Compulsory
	I070105	HSK（Level Ⅲ）A	4	64	3	Compulsory
	I070106	HSK（Level Ⅲ）B	4	64	4	Compulsory
	Credits Requirement		22 Credits			
Basic Courses	DI020303	Advanced food chemistry	2	32	1	Compulsory
		Credits Requirement	2 Credits			
	I020304	Food flavor chemistry theory and technology	2	32	1	Compulsory
	D020104	Nutraceutical and Nutritional Chemistry	2	32	1	Compulsory
	Credits Requirement		4 Credits			
Major Optional Course	I020301	Food Processing and Development	2	32	1	Optional
	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
	P020208	Food bioengineering and technology transformation	2	32	1	Optional
	Credits Requirement		⩾4 Credits			
Total Credits			⩾32 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.

- Thesis research initiation

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

- Thesis mid-term examination

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

- Thesis evaluation and defense

All international students have to defend their thesis.

- Achievement requirements for Degree Award

Applying for a master's degree, the international graduate student must publish academic paper or authorized invention patent related to the subject as the first author or as the second author (supervisor as the first author), with the cumulative achievement of more than 1.5 points. The publication of the thesis shall be subject to the formal publication notice. The academic paper published must be signed by "Beijing University of technology and industry" as the first unit. The original manuscript of the academic paper must be reviewed, signed and approved by the supervisor before submission.

Achievement score standard: I. 2.0 points for one A1 paper or one international invention patent;

II. 1.5 points for one A2 paper published or one domestic invention patent authorized;

III. 1.0 point for one journal paper published in A3 paper or Chinese Science Citation Database in Food subject (CSCD);

Note: Grade A papers and their classification are based on Journal classification of Beijing Technology and Business University, CSCD in Food subject: Journal of food science and technology, Journal of food and biotechnology, Journal of food and fermentation industry, Journal of food hygiene, Journal of agricultural engineering, Journal of bioengineering

- Degree awarding Engineering master degree

- 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".

轻工科学技术学院

生物化工硕士留学研究生培养方案

授予学位类别：工学硕士学位

一级学科代码名称：0817 化学工程与技术

二级学科代码名称：081703 生物化工

制订单位：轻工科学技术学院

一、培养目标

以培养生物化工领域高素质、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，熟悉生物化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生物化工领域专业技术工作的能力。

二、学科简介与研究方向

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

课程类别	学分要求	课程类别	学分要求
公共课	22	基础课	4
专业课	2	选修课	≥4
必修环节	2	总学分	≥34

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
	I070103	汉语（一级）	6	96	1	必修
	I070104	汉语（二级）	6	96	2	必修
	I070105	汉语（三级）上	4	64	3	必修
	I070106	汉语（三级）下	4	64	4	必修
		应修	22 学分			
基础课	A020402	生物活性成分分离纯化技术	2	32	1	必修
	A020404	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
	AI120303	过程工程原理	3	48	1	选修
	P120206	基因工程与合成生物学	2	32	1	选修
		应修	≥4 学分			
课程总学分要求			≥32 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，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 Biochemical Engineering for International Students

Degree: Professional Master Degree of Engineering

Degree code: 081703

Professional field: Biochemical Engineering

1.Education objectives

The objectives of this program are to cultivate high-qualified applied professionals who will have profound understanding of biochemical 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 biochemical 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 biochemical engineering.

2. Research field introduction

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
	I070103	HSK（Level Ⅰ）	6	96	1	Compulsory
	I070104	HSK（Level Ⅱ）	6	96	2	Compulsory
	I070105	HSK（Level Ⅲ）A	4	64	3	Compulsory
	I070106	HSK（Level Ⅲ）B	4	64	4	Compulsory
		Credits Requirement	22 Credits			
General course	A020402	Separation Techniques for Bioactive Components	2	32	1	Compulsory
	A020404	Metabolic Engineering	2	32	1	Compulsory
		Total credits	4 Credits			
Major course	DI020303	Advanced food chemistry	2	32	1	Compulsory
		Total credits	2 Credits			

Major optional course	DI020306	Principle and Practice of Food Microbiology and Biotechnology	2	32	1	Optional
	AI120303	Principles of Process Engineering	3	48	1	Optional
	P120206	Genetic engineering and SyntheticBiology	2	32	1	Optional
		Credits required	≥4 Credits			
Total Credits			≥32 Credits			

5. Teaching Language

English

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

1. 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.

化学与材料工程学院

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：工学硕士学位

一级学科代码名称：0817 化学工程与技术

二级学科代码名称：0817Z1 化妆品科学与技术

制订单位：化学与材料工程学院

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	7	选修课	≥8
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
	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
	A130215	专业英语	1	16	1	必修
	应修		7 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
	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
		跨学科选修课（导师指导）	2			必选
	应修		≥8 学分			
课程总学分要求			≥31 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

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（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。

Training program for overseas graduate students in cosmetic science and Technology

Disciplines: Engineering

Primary discipline:0817Chemical Engineering and Technology

Secondary discipline:0817Z1Cosmetic Science and Technology

Institute: School of Chemistry and Materials Engineering

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	7	Optional course	8
compulsorycourses	2	Total Credits	≥33

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
	A130215	Professional English	1	16	1	Compulsory
	Credits Requirement		7 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
	A130134	Modern microbial technology	2	32	2	Optional
	A130135	Principles and techniques of cell biology experiment	2	32	1	Optional
		Interdisciplinary Optional Course (Tutor guidance)	2			Compulsory
	Credits Requirement		8 Credits			
Total Credits			⩾31 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：工程硕士学位

专业类别代码名称：0856 材料与化工

制订单位：化学与材料工程学院

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 6 种研究方向。

1、聚合物导热、导电功能材料

2、生物基与生物降解材料

3、聚合物发泡材料

4、聚合物阻燃材料

5、聚合物功能薄膜

6、聚合物表面与界面

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	22	基础课	≥4
专业课	4	选修课	≥6
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
	I070103	汉语（一级）	6	96	1	必修
	I070104	汉语（二级）	6	96	2	必修
	I070105	汉语（三级）上	4	64	3	必修
	I070106	汉语（三级）下	4	64	4	必修
	应修		22 学分			
基础课	PI130101	材料结构与性能	2	32	1	必修
	PI130102	材料表征与测试	2	32	1	必修
	应修		4 学分			
专业课	PI130103	高分子材料工程设计基础	1	16	1	必修
	PI130104	材料科学与工程前沿	1	16	1	必修
	PI130105	现代高分子合成与加工技术	2	32	1	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
	PI130112	分子与材料	1	16	1	选修
	应修		6 学分			
课程总学分要求			≥36 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（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。

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

Type of degree awarded: Master of Engineering

Professional category code name: 0856 Materials and Chemicals

Formulated by: School of Chemistry and Materials 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 six research directions.

1. Polymer heat conductive and conductive functional materials
2. Bio-based and biodegradable materials
3. Polymer foam material
4. Polymer flame retardant materials
5. Polymer functional film
6. Polymer surface and interface

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	22	Basic Courses	≥4
Professional courses	4	Optional course	≥6
compulsory courses	2	Total Credits	≥38

Course Classification	Course Code	Course Name	Credits	Course Hours	Semester	Compulsory/ Optional
Public Course	I010102	Chinese Culture	2	32	1	Compulsory
	I070103	HSK（Level Ⅰ）	6	96	1	Compulsory
	I070104	HSK（Level Ⅱ）	6	96	2	Compulsory
	I070105	HSK（Level Ⅲ）A	4	64	3	Compulsory
	I070106	HSK（Level Ⅲ）B	4	64	4	Compulsory
	Credits Requirement		22 Credits			
Basic Courses	PI130101	Material structure and performance	2	32	1	Compulsory
	PI130102	Material characterization and testing	2	32	1	Compulsory
	Credits Requirement		4 Credits			
Discipline Core Course	PI130103	Engineering design fundamentals of polymer materials	1	16	1	Compulsory
	PI130104	Frontiers of materials science and engineering	1	16	1	Compulsory
	PI130105	Modern polymer synthesis and processing technology	2	32	1	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
	PI130112	Molecules and materials	1	16	1	Optional
	Credits Requirement		⩾6 Credits			
Total Credits			⩾36 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.

生态环境学院

环境科学与工程硕士留学研究生培养方案

授予学位类别：工学学位

一级学科代码名称：0830 环境科学与工程

制订单位：生态环境学院

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，是原中国轻工总会部级重点学科，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应用型人才为目标，形成了特色鲜明的四个学科方向：

（1）水污染综合防治理论与技术。针对城市污水和轻工重点行业废水污染特征，重点围绕轻工行业高浓度有机废水、难降解有机污染物和有毒有害污染物，进行水污染防治工艺研究与技术开发。紧密结合我国轻工重点行业清洁生产发展的需要，以提高废水出水水质和节能降耗为目标，重点在难降解有机物的高级氧化技术结合功能微生物对污染物的降解机制和调控对策、膜处理及膜材料开发、高浓度废水碳、氮、磷协同处理技术、工业水资源的梯级开发和综合利用、市政污水再生处理技术及与安全评价技术、污泥生化法减量及资源化等方面形成优势。

（2）城市大气复合污染与控制。针对城市大气复合型污染特征，重点围绕大气细颗粒物（$PM_{2.5}$）复合污染、典型大气污染源污染物排放特征、城市尺度大气污染源排放清单开发、VOCs 排放定量、轻工行业 VOCs 污染控制技术、以及新能源材料研发开展研究。针对城市大气污染热点问题，在城市大气 $PM_{2.5}$ 成因分析、机动车排放特征、城市机动车排放清单开发技术、城市尺度大气污染源排放清单开发技术及应用、轻工行业 VOCs 污染控制技术、新能源材料开发等方面形成优势。

（3）固体废弃物处理与处置。针对生活垃圾、轻工业有机残渣等生物质废物的特点，结合生

物、化学和物理分离等技术，研究固体废物的安全高值利用技术及相关政策。 围绕固体废物安全处置和资源化问题，在集“智能收运-精细预处理-高效分离-厌氧发酵-废液肥料化-废油安全利用-轻工废渣资源化和无害化”等关键技术于一体的餐厨和厨余垃圾资源化综合处理成套技术与工程应用、餐厨废油安全高值利用技术、生活垃圾综合处理技术、轻工行业有机残渣的高值化利用等方面形成优势。

（4）清洁生产与资源综合利用。针对食品等典型轻工行业的生产过程及污染物产生特征，重点围绕企业清洁生产和绿色制造、行业共性污染防治技术研发、行业污染物对环境(水/土壤/大气)产生的影响和政策制订开展研究。围绕轻工食品行业绿色发展的关键环节，在企业清洁生产审核、绿色制造体系评价、行业污染环境影响机理分析和评价、行业污染防治技术政策及指南制定、行业共性清洁生产与资源综合利用技术等方面形成优势。

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	22	基础课	4
专业课	8	选修课	≥3
必修环节	2	总学分	≥39

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
	I070103	汉语（一级）	6	96	1	必修
	I070104	汉语（二级）	6	96	2	必修
	I070105	汉语（三级）上	4	64	3	必修
	I070106	汉语（三级）下	4	64	4	必修
	应修		22 学分			
基础课	AI140101	高等环境化学	2	32	1	必修
	AI140102	环境科学与工程前沿	2	32	1	必修
	应修		4 学分			
专业课	AI140103	水处理原理	2	32	1	必修
	AI140104	大气污染控制与装备	2	32	1	必修
	AI140105	固体废物资源化处理工程	2	32	1	必修
	AI140106	工业清洁生产原理与方法	2	32	1	必修
	应修		8 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
	AI140110	环境与资源经济学	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
	AI140113	英文科技论文写作	1	16	1	选修
	A140135	高浓度有机工业废水生物处理技术	2	32	1	选修
	应修		≥3 学分			
课程总学分要求			≥37 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 Environmental Science and Engineering

1.Training Target

Adhering to the basic task of cultivating people with morality, this master program inherits the characteristics of light industry environmental protection and aims to cultivate high-quality and high-level applied talents in Environmental science and engineering fields. This master program requires the students to grasp solid basic theoretical knowledge, Scientific research methods and experimental practical skills, know development and research trends in China and abroad, possess good scientific quality, strong team spirit, strong Practical ability and a degree of innovation ability. It also require the students to have strong capabilities to work independently in environmental engineering-related industries.

2.Overview of the Program

Master of Environmental Science and Engineering in Beijing Technology and Business University (BTBU) is originated from Environmental Engineering in Beijing Institute of Light Industry, which is one of the earliest to begin teaching and scientific research of environmental science in China. This major begin to enroll undergraduate in 1979, and begin to enroll graduate student in 1981. It is allowed to confer second-level master degree of environmental engineering in 1996, and confer first-level master of environmental science and engineering and second-level master of environmental science in 2006. It now becomes a key construction discipline in Beijing City. This major has a feature of light industry and aims to meet the demands of Beijing development. It takes advantage of tradition advantage of environmental science, food science, material science and information science of BTBU, and fuse different disciplines to develop environmental science and technology and explore new areas and directions. It aims to cultivate high-quality comprehensive applied talents. It has four discipline orientation;

1 Theory and technology of water pollution control

According to the characteristics of municipal wastewater and typical wastewaters in light industry, it aims to conduct wastewater pollution control research and technology development based on high concentrated organic wastewater, persistent organic pollutant and poisonous and hazardous pollutants. This professional field includes advanced oxidation technology for refractory organic matter; degradation mechanism and regulation of pollutants by functional microorganisms; membrane treatment and membrane material development; synergistic treatment technology of carbon, nitrogen and potassium in concentrated wastewater; municipal wastewater reclamation and safe disposal and analysis techniques; biochemical sludge reduction and reclamation;

2.2 Urban air comprehensive pollution and control

According to the characteristics of urban air comprehensive pollution, it is to conduct cause analysis of air pollution and technology development, to address problems of PM2.5 comprehensive pollution, urban vehicle pollutants emission and flue gas emission. This professional field includes cause analysis of PM2.5 in urban air, urban vehicle emission gas properties, urban air emission inventory development technology, Development and application of emission inventory of urban air pollution sources, VOCs

pollution control technology for light industry, development of new energy materials.

2.3 Recycling of solid waste

According to characteristics of typical urban solid waste and light industrial residues in papermaking, fermentation, leather industries, it is to investigate safe high-value application and relevant regulations, using biological, chemical and physical technologies. This professional field includes safe disposal and recycling of solid waste, technology and engineering application for the comprehensive treatment of kitchen waste based on intelligent collection and transportation-fine pretreatment-high efficiency separation-anaerobic fermentation-waste liquid fertilizer-waste oil safety utilization-light industry waste residue recycling and harmless, technology for safe and high value utilization of kitchen waste oil, comprehensive treatment technology of household garbage, high value utilization of organic residue in light industry.

2.4 Cleaner production and comprehensive resource utilization

According to characteristics of pollutants generated from light industry such as food industry, this professional field focus on clean production and green manufacturing, research and development of generic pollution prevention technology, environmental (soil, water and air) impacts and policies of industrial pollutants. This professional field includes clean production audit of enterprises, evaluation of green manufacturing system, analysis and evaluation of environmental impact mechanism, formulating technical policies and guidelines for pollution prevention and control, cleaner production and comprehensive utilization of resources technology.

3. Length of Schooling

This is a full-time two year length of schooling program, which has 5 year maximum length of schooling.

4. Curriculum and Credits Requirements

Course Classification	Credits Requirement	Course Classification	Credits Requirement
Public Course	22	Basic Courses	4
Discipline Core Course	8	Major Optional Course	≥3
Practice Part	2	Total Credits	≥39

Course Classification	Course Code	Course Name	Credits	Course Hours	Semester	Compulsory/ Optional
Public Course	I010102	Chinese Culture	2	32	1	Compulsory
	I070103	HSK（Level Ⅰ）	6	96	1	Compulsory
	I070104	HSK（Level Ⅱ）	6	96	2	Compulsory
	I070105	HSK（Level Ⅲ）A	4	64	3	Compulsory
	I070106	HSK（Level Ⅲ）B	4	64	4	Compulsory
	Credits Requirement		22 Credits			

Basic Courses	AI140101	Advanced Environmental Chemistry	2	32	1	Compulsory
	AI140102	Frontiers of Environmental Science and Engineering	2	32	1	Compulsory
	Credits Requirement		4 Credits			
Discipline Core Course	AI140103	Principle of Water Treatment	2	32	1	Compulsory
	AI140104	Atmospheric Pollution Control and Equipment	2	32	1	Compulsory
	AI140105	Solid Waste Resource Treatment Project	2	32	1	Compulsory
	AI140106	Principles and Methods of Industrial Cleaner Production	2	32	1	Compulsory
	Credits Requirement		8 Credits			
Major Optional Course	AI140107	Modern Environmental Analysis Techniques	2	32	1	Optional
	AI140108	Environmental Ecology	2	32	1	Optional
	AI140109	Environmental Planning and Management	2	32	1	Optional
	AI140110	Economics of Environment and Resources	2	32	1	Optional
	AI140111	Environmental Analysis Spectroscopy	1	16	1	Optional
	AI140112	Environmental Metabonomics	1	16	1	Optional
	AI140113	English Scientific Papers Writing	1	16	1	Optional
	A140135	Technology of biological treatment of high organic industrial wastewater	2	32	1	Optional
	Credits Requirement		≥3 Credits			
Total Credits			≥37 Credits			

5. Teaching Language

English

6. Practice Part

1. Academic Activities（1 credit）

It requires the students to attend academic meeting, academic forum, academic report and oral academic report in China and other countries. Each program can develop assessable standards according to the actual condition.

2. Professional Practice（1 credit）

Practical teaching of international students in China requires the combination of professional requirement and career planning so that they can become international talents. Each program can develop assessable standards according to the actual condition.

7. The Dissertation Related Work

The Dissertation Related Work of international students in China includes capstone presentation, medium-term inspection, Review of scientific research Achievements, Text repetition rate detection, blind review and dissertation defence. Detailed requirement can be seen from 《Regulations of graduate dissertation of international students in Beijing Technology and Business University》、《Regulations of degree awarding of international students in Beijing Technology and Business University（proposed regulations）》。

8. Course Syllabus

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

人工智能学院

机械硕士留学研究生培养方案

授予学位类别：工程硕士学位

专业类别代码名称：085500 机械

制订单位：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 56 名，其中教授 10 人，副教授 29 人，硕士生导师 31 人，49 名教师具有博士学位，占比 87.5%。

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	22	基础课	≥4
专业课	≥4	选修课	≥6
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
	I010103	汉语（一级）	6	96	1	必修
	I070104	汉语（二级）	6	96	2	选修
	I070105	汉语 （三级）上	4	64	3	必修
	I070106	汉语 （三级）下	4	64	4	选修
	应修		22 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			≥36 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（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 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 56 full-time teachers in this discipline, including 10 professors, 29 associate professors, 31 master tutors, and 49 teachers with doctorate degrees, accounting for 87.5%.

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	22	Basic Courses	≥4
Discipline Core Course	≥4	Major Optional Course	≥6
Compulsory Link	2	Total Credits	≥38

Course Classification	Course Code	Course Name	Credits	Course Hours	Semester	Compulsory/ Optional
Public Course	I010102	Chinese Culture	2	32	1	Compulsory
	I010103	HSK(Level I)	6	96	1	Compulsory
	I010104	HSK(Level II)	6	96	2	Compulsory
	I010105	HSK(Level III) A	4	64	3	Compulsory
	I010106	HSK(Level III) B	4	64	4	Compulsory
	Credits Requirement		22 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			⩾36 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.

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：工程硕士学位

专业类别代码名称：0854 电子信息（控制工程）

专业领域名称：电子信息

制订单位：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。

4．身心健康。

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 2 年，最长修业年限 4 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	22	基础课	≥4
专业课	6	选修课	≥6
必修环节	2	总学分	≥40

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
	I070103	汉语（一级）	6	96	1	必修
	I070104	汉语（二级）	6	96	2	必修
	I070105	汉语（三级）上	4	64	3	必修
	I070106	汉语（三级）下	4	64	4	必修
	应修		22 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	高级软件工程	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			≥38 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。

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。

Electronic Information (Control Engineering) Master of International Business 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, 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） Have teamwork spirit and credit awareness, and have a strong creative spirit and innovative ability.

（4）Healthy and positive.

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 two-year degree. If necessary, the duration of the study could be extended to no more than four years.

Curriculum and Credits Requirements

Table 1 Description of total credits

Course Classification	Credits Requirement	Course Classification	Credits Requirement
Public Course	22	Basic Courses	≥4
Discipline Core Course	6	Discipline Core Course	≥6
Compulsory	2	Total Credits	≥40

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
	I070103	HSK（Level Ⅰ）	6	96	1	Compulsory
	I070104	HSK（Level II）	6	96	2	Compulsory
	I070105	HSK（Level III）A	4	64	3	Compulsory
	I070106	HSK（Level III）B	4	64	4	Compulsory
	Credits Requirement		22 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	Advanced Software Engineering	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			⩾38 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.

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.

计算机学院

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：工程硕士学位

专业类别代码名称：0854 电子信息

专业领域名称：计算机技术

制订单位：计算机学院

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

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

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

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。其成果可以帮助政府、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 2 年，学习年限最长不得超过 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	22	基础课	6
专业课	6	选修课	≥4
必修环节	9	总学分	≥47
学分说明	1．必修环节为专业实践，学时不少于 6 个月 144 学时，以 9 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 47 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
	I010102	中国概况	2	32	1	必修
	I010103	汉语（一级）	6	96	1	必修
	I010104	汉语（二级）	6	96	2	必修
	I010105	汉语（三级）上	4	64	3	必修
	I010106	汉语（三级）下	4	64	4	必修
		应修	22 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
	PI160307	信息可视化技术	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
	PI150407	Python 编程训练	2	32	3	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
	PI160308	高级软件工程	2	32	2	选修
		应修	≥4 学分			
课程总学分要求			≥38 学分			

五、授课语言

英文

六、必修环节

必修环节为 9 学分的专业实践，安排在第 4 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

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》。

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，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 two-year degree. If necessary, the duration of the study could be extended to no more than four years.

Curriculum and Credits Requirements

4. able 1 Description of total credits

Course Classification	Credits Requirement	Course Classification	Credits Requirement
Public Course	22	Basic Courses	6
Discipline Core Course	6	Electives	⩾4
Compulsory Part	9	Total Credits	⩾47
Credit description	1. The compulsory part is a professional practice. The duration of the professional practice is not less than 6 months and 144 hours. It is with 9 credits. See “6. Compulsory Part” for more details. 2. The total number of credits shall not be less than 47 credits.		

Course Classification	Course Code	Course Name	Credits	Course Hours	Semester	Compulsory/ Optional
Public Course	I010102	Chinese Culture	2	32	1	Compulsory
	I010103	HSK (Level I)	6	96	1	Compulsory
	I010104	HSK (Level II)	6	96	2	Compulsory
	I010105	HSK (Level III) A	4	64	3	Compulsory
	I010106	HSK (Level III) B	4	64	4	Compulsory
		Credits Requirement	22 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
	PI160307	Information Visualization	2	32	3	Compulsory
		Credits Requirement	6 Credits			
Major Optional Course	PI160302	Database and Data Mining	2	32	1	Optional
	PI150407	Python Programming Training	2	32	3	Optional
	PI150408	Deep Learning	2	32	2	Optional
	PI160304	Computer Science Frontier	2	32	3	Compulsory
	PI160308	Advanced Software Engineering	2	32	2	Optional
		Credits Requirement	⩾4 Credits			
Total Credits			⩾38 Credits			

5. Teaching Language

English

6. Compulsory Part

There is a compulsory professional practice with 9 credit points. This professional practice is arranged in the fourth 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.

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。

二、学科简介与研究方向

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。

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 PPP 融资等方面研究。。

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。

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	22	基础课	9
专业课	≥4	选修课	≥4
必修环节	2	总学分	≥41

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
	I070103	汉语（一级）	6	96	1	必修
	I070104	汉语（二级）	6	96	2	必修
	I070105	汉语（三级）上	4	64	3	必修
	I070106	汉语（三级）下	4	64	4	必修
	应修		22 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	四选二
	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	
	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			≥39 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。

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。

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）》。

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。

（一）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。

（二）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。

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、适用学科专业、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

We aim to cultivate professionals who meet the needs of world economic development, have a solid and generous theoretical basis of economics and in-depth professional knowledge. The professionals are able to master the cutting-edge theory and research methods of modern economics. 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 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 PPP financing.

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. 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	22	Basic Courses	9
Discipline Core Course	≥4	Major Optional Course	≥4
Practice Part	2	Total Credits	≥41

Course Classification	Course Code	Course Name	Credits	Course Hours	Semester	Compulsory/ Optional
Public Course	I010102	Chinese Culture	2	32	1	Compulsory
	I070103	HSK（Level Ⅰ）	6	96	1	Compulsory
	I070104	HSK（Level Ⅱ）	6	96	2	Compulsory

	I070105	HSK（Level Ⅲ）A	4	64	3	Compulsory
	I070106	HSK（Level Ⅲ）B	4	64	4	Compulsory
	Credits Requirement		22 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 4）
	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	
	Credits Requirement		≥4 Credits			
Complementary Course		To be required by supervisor	-	32	2	
		To be required by supervisor	-	32	2	
Total Credits			≥39 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

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 “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

理论经济学硕士留学研究生培养方案

授予学位类别：经济学硕士学位

一级学科代码名称：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 53 学分。学分组成为：必修课程共计 43 学分，其中公共基础课程不少于 22 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
	I070107	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	产业组织与政府管制文献研读	2	32	2	选修
	A010415	计量软件应用	2	32	2	选修
	A010105	数理经济学	2	32	2	选修
	A010410	世界经济专题	2	32	2	选修

	A010303	金融经济学	2	32	2	选修
	A010201	公共财政理论研究	2	32	1	选修
	A010119	经济分析与政策分析	2	32	3	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）

留学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）

留学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 3 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 2 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 20 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（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、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

Awarded Degree: Master of Economics

Program name and Program code：0201Theoretical Economics

Designed by School of Economics

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 and behavior 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

Course credit：, program backbone and elective courses 16 credits.

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 53credits. The composition of credits is: 43 credits for compulsory courses, including 22 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. Supplementary courses

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 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 thesis qualification.

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	Intermediate econometrics	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
	A010606	Literature review of industrial organization and government regulation	2	32	1	Optional
	A010415	Econometrics Software Application	2	32	2	Optional
	A010105	Mathematical Economics	2	32	2	Optional
	A010410	Special topic of world economics	2	32	2	Optional
	A010303	Financial Economics	2	32	2	Optional
	A010201	Research on the theory of public finance	2	32	1	Optional
	A010119	Economic analysis and policy analysis	2	32	3	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				
Total Credits			≥39 Credits			

V. Teaching Language

Chinese

VI. Practice Part（2 credits）

1. Academic lecture（1 credit）

Postgraduates must attend at least 10 special lectures, academic lectures or postgraduate forums during their stay in the school. Each college may also make specific requests according to the situation.

2. Innovation projects（1 credit）

Innovation projects include academic seminar, scientific research, professional practice, program competition, social service, etc.

Select at least 3 of the projects as the compulsory parts of the training.

i. Academic seminars: Academic seminars are guided by the supervisors, organized and managed by students independently, and will hold academic seminar activities regularly. Academic seminars can generally be conducted under a research topic for literature research and reported as thesis within the college or the program. The purpose is to let students understand the frontier topics and developments of the program or related programs. Students are required to attend more than 10 academic seminars, and those who attend other university seminars are also recognized, only agreed by their tutors and provide relevant evidence.

ii. Scientific research: Under the guidance of the supervisors, students participate in the scientific research and work no less than 40 hours accumulatively.

iii. Professional practice: Students should take internship of their programs practical business practice from professional field and the cumulative practice time should be no less than 2 months, and must be agreed by their tutors, and provide relevant certification and the acceptance unit appraisal.

iv. Program competition: Students should complete a program competition, no matter it’s a national, school-wide or college-sponsored program or professional competition. Or students should complete a postgraduate science and technology project organized by the school or college, and provide the corresponding competition or research results.

v. Social service: Students are organized to participate in assistants, teaching assistants and other volunteer service activities, and the cumulative service time should be no 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 be awarded 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.（《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）》)

VIII. Training Program Schedule:.

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.

产业经济学硕士留学研究生培养方案

授予学位类别：经济学硕士学位

一级学科代码名称：0202 应用经济学

二级学科代码名称：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 29 学分。学分组成为：必修课程不少于 21 学分，其中公共基础课程不少于 5 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 9 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	22 学分	基础课	6 学分
专业课	10 学分	选修课	≥8
必修环节	9 学分	总学分	≥55 学分
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
	I070103	汉语（一级）	6	96	1	必修
	I070104	汉语（二级）	6	96	2	必修
	I070105	汉语（三级）上	4	64	3	必修
	I070106	汉语（三级）下	4	64	4	必修
	应修		22 学分			
基础课	PI010601	经济学分析与应用	2	32	1	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
	AI010105	电子商务产业研究	2	32	1	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
	PI010605	国际市场营销	2	32	2	选修
	PI010613	WTO 专题研究	2	32	2	选修
	PI010604	国际金融理论与实务	2	32	2	选修
	PI010606	研究方法与论文写作	2	32	2	选修
	应修		≥8 学分			
必修环节		学术活动	1		1-4	
		专业实践	8		1-4	
		应修	9 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			≥55 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）

产业经济学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（8 学分）

产业经济学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相关课题研究。课题研究不少于 140 学时，撰写不少于 8000 字的案例研究/专题调研报告。

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（试行）》、《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

1.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; cultivate compound senior enterprise managers, administrative personnel of government economic departments and industry associations with high comprehensive quality, innovation and entrepreneurial spirit, who can participate in international competition, and senior research talents with research expertise in research institutions.

2.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.

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

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 55 credits, including 46 credits in course study and 9 credits in practices. The 46 credits include 38 credits in compulsory courses and 8 credits in elective courses. The 9 credits include 8 credits, which should take part in the research project of the supervisor and 1 credit in seminars.

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. Students who successfully defend their thesis are entitled to be conferred the industrial economy according to the degree application procedure.

Course Classification	Course Code	Course Name	Credits	Course Hours	Semester	Compulsory/ Optional
Public Course	I010102	Chinese Culture	2	32	1	Compulsory
	I070103	HSK（Level Ⅰ）	6	96	1	Compulsory
	I070104	HSK（Level Ⅱ）	6	96	2	Compulsory
	I070105	HSK（Level Ⅲ）A	4	64	3	Compulsory
	I070106	HSK（Level Ⅲ）B	4	64	4	Compulsory
	Credits Requirement		22 credits			
Basic Courses	P I 010601	Economic Analysis and Application	2	32	1	Compulsory
	A I 010102	Introduction to Industrial Organization	2	32	1	Compulsory
	AI010104	Management Research Methodology	2	32	3	Compulsory
	Credits Requirement		6 credits			
Discipline Core Course	A I 010101	Industrial Organizational Theory	2	32	2	Compulsory
	A I 010103	Modern Agricultural Industry	2	32	2	Compulsory
	AI010106	Futures Market Research	2	32	3	Compulsory
	AI010105	E-commerce Industry Research	2	32	1	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
	PI010605	International Marketing	2	32	2	Optional
	PI010613	Study on WTO Issues	2	32	2	Optional
	PI010604	International Finance and Practices	2	32	2	Optional
	P I010606	Research Methodology and Thesis Writing	2	32	2	Optional
	Credits Requirement		⩾8 credits			

Practice Part		Academic Activities	1		1~4	
		Professional Practice	8		1~4	
	Credits Requirement		9 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			≥55 credits			

5. Teaching Language

English

6. Practice Part

(1) Academic activities

This part needs the students active participate in international and domestic academic conferences, academic forums, academic reports and oral reports at international academic conferences.

(2) Professional practice

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.

金融硕士留学研究生培养方案

授予学位类别：金融硕士专业学位

专业类别代码名称：0251 金融硕士

制订单位：经济学院

一、培养目标

金融专业培养德才兼备、具备坚实的经济金融理论功底、能够把握宏观经济金融政策、精通和掌握金融某一专业领域的知识和技能、具有较强解决金融实际问题能力的应用型高级金融技术和管理人才。

具体要求：

1．身心健康，具备良好的政治思想素质和职业道德素养。

2．具备扎实的金融学理论基础，具有前瞻性和国际化视野，系统掌握投融资管理技能、金融交易技术与操作、金融产品设计与定价、财务分析、金融风险管理以及相关领域的知识和技能，能够应用金融学的相关理论和方法解决实际问题。

3．较为熟练地掌握英语，能熟练阅读英文经济学文献，并能用英语进行交流。

4．熟悉现代信息技术，具备熟练运用网络查阅、收集和处理相关专业知识的技能，具备较强的写作能力和沟通能力。

二、类别（领域）简介与研究方向

1．区域金融：涵盖县域金融、普惠金融、绿色金融、家庭金融、金融扶贫等领域；

2．数字金融：涵盖数字货币、金融数据挖掘与分析等领域；

3．股权投资与公司金融：涵盖创业投资、私募股权投资、公司金融等领域；

4．资产定价与风险管理：涵盖资产定价、宏微观金融风险管理等领域。

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 53 学分。学分组成为：必修课程共计 38 学分，其中公共基础课程不少于 22 学分，学科基础课程 8 学分，专业课程 8 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。

本专业课程分必修课和选修课。其中必修课（含公共课、基础课、专业课三类）共计 38 学分，

在导师指导下选择教学计划所列的选修课应不少于 8 学分。

2. 补修课程（适用于本科非经济和管理类专业学生）

跨专业录取的研究生须在导师指导下补修专业本科主干课程 2 门，补修课采取闭卷考试形式，未达要求的同学需重修本科同名课程，参加本科课程考试并考核合格，方可有资格参加毕业论文答辩。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%。

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。

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	7	总学分	≥41

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
	I070103	汉语（四级）上	2	32	1	必修
	I070104	汉语（四级）下	2	32	2	必修
	I070105	汉语（五级）上	2	32	3	必修
	I070106	汉语（五级）下	2	32	4	必修
	应修		10 学分			
基础课	A010302	投资学	2	32	1	必修
	A010304	公司金融	2	32	1	必修
	A010315	金融市场与金融机构	2	32	1	必修
	A010314	中级金融学	2	32	1	必修
	应修		8 学分			
专业课	P010101	行为金融学	2	32	2	必修
	P010102	金融衍生工具	2	32	1	必修
	A010307	固定收益证券	2	32	1	必修
	P010326	财务报表分析	2	32	2	必修
	应修		8 学分			

选修课	A010316	金融计量软件与应用	2	32	2	选修
	A010317	私募股权投资	1	16	2	选修
	P010317	外汇风险管理	1	16	2	选修
	A010318	创业投资	1	16	2	选修
	P010319	企业并购实务	1	16	2	选修
	A010319	房地产金融理论与实务	1	16	2	选修
	P010321	普惠金融理论与实践	1	16	2	选修
	P010322	公司治理	1	16	2	选修
	P010323	财富管理	1	16	2	选修
	A010320	量化投资	1	16	2	选修
	A010321	金融科技专题	1	16	2	选修
	A010119	经济分析与政策分析	2	32	1	选修
	应修		≥8 学分			
补修课		金融学				
		国际金融学				
课程总学分要求			≥34 学分			

五、授课语言

中文

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》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 Finance Program

1. Training Target

The aim of this program is to cultivate financial and management students with both ethics, solid economic and financial theory, ability to grasp national economic and financial policies, proficient and master knowledge and skills in a specific field of finance, and strong ability to solve practical financial problems.

Requirements:

(1) Possess healthy physical and mental, good political and ideological quality and professional ethics.

(2) Possess a solid theoretical foundation of finance, a forward-looking and international perspective; systematically master the knowledge and skills of investment and financing management skills, financial transaction technology and operations, financial product design and pricing, financial analysis, financial risk management, and related fields; Solve practical problems by applying relevant theories and methods of finance.

(3) Proficient in English, proficient in reading English economic literatures, and able to communicate in English.

(4) Familiar with modern information technology, skilled in the use of network to access, collect and process relevant professional knowledge, possess strong writing skills and communication skills.

2. Overview of the Program

(1) Regional finance: county finance, inclusive finance, green finance, household finance, financial poverty alleviation

(2) Digital finance: digital currency, financial data mining and analysis

(3) Equity investment and corporate finance: venture capital, private equity, corporate finance

(4) Asset pricing and risk management: asset pricing, macro and micro risk management

3. Length of Schooling

(1) 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. Full-time master degree graduates are not allowed to graduate in advance.

(2) The training period of part-time master degree graduates is 3-5 years; the course study is implemented by the credit system, and the course study results are valid for no more than 5 years.

4. Curriculum and Credits Requirements

Course	Credit Requirements	Course Type	Credit Requirements
Public Course	10	Basic Courses	8
Core Course	8	Major Optional Course	⩾8
Discipline Core Course	7	Credits	⩾41

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	A010302	Investment	2	32	1	Compulsory
	A010304	Corporate Finance	2	32	1	Compulsory
	A010315	Financial Markets and Financial Institutions	2	32	1	Compulsory
	A010314	Intermediate Finance	2	32	1	Compulsory
	Credits Requirement		8 Credits			
Discipline Core Course	P010101	Behavioral Finance	2	32	2	Compulsory
	P010102	Financial Derivatives	2	32	1	Compulsory
	A010307	Fixed Income Securities	2	32	1	Compulsory
	P010326	Financial Reporting and Analysis	2	32	2	Compulsory
	Credits Requirement		8 Credits			
Major Optional Course						
	A010316	Software for Finance	2	32	2	Elective
	A010317	Private Equity	1	16	2	Elective
	P010317	Foreign Exchange Risk Management	1	16	2	Elective
	A010318	Venture Capital	1	16	2	Elective
	P010319	Corporate M&A Practice	1	16	2	Elective
	A010319	Real Estate Finance: Theory and Practice	1	16	2	Elective
	P010321	Microfinance Theory and Practice	1	16	2	Elective
	P010322	Corporate Governance	1	16	2	Elective
	P010323	Wealth Management	1	16	2	Elective
	A010320	Quantitative Investment	1	16	2	Elective
	A010321	Fintech	1	16	2	Elective
	A010119	Economic analysis and policy analysis	2	32	1	Elective
	Credits Requirement		⩾8 Credits			
Remedial Courses		Finance				
		International Finance				
Total Credits			⩾34 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 or 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

Some works included in the master of finance 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 Finance 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.

国际商务硕士留学研究生培养方案（经济学院）

授予学位类别：国际商务硕士学位

专业类别代码名称：0254 国际商务硕士

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 2 人、副教授 10 人、讲师 2 人。博士生导师 2 人，硕士生导师 10 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、国际大宗农产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 56 学分。学分组成为：必修课程共计 41 学分，其中公共基础课程不少于 22 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	22	基础课	7
专业课	12	选修课	≥8
必修环节	7	总学分	≥56
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
	I070103	汉语（一级）	6	96	1	必修
	I070104	汉语（二级）	6	96	2	必修
	I070105	汉语（三级）上	4	64	3	必修
	I070106	汉语（三级）下	4	64	4	必修
	应修		22 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
	PI010612	跨文化商务沟通	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
	AI010105	电子商务产业研究	2	32	1	选修
	应修		≥8 学分			
课程总学分要求			≥49 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）

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。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（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 International Business Program

(School of Economics)

Award of Degree: Master of International Business Professional Degree

Major Code and Name: 0254 Master of International Business

School: 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 2 professors, 10 associate professors, 2 lecturers. We have 2 doctoral supervisors and 10 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 Agricultural 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 56 credits, including 41 credits in compulsory courses and 8 credits in

optional courses. The credits in compulsory courses include 22 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	22	Basic Course	7
Professional Course	12	Optional Course	≥8
Practice	7	Total Credits	≥56
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
	I070103	HSK（Level Ⅰ）	6	96	1	Compulsory
	I070104	HSK（Level Ⅱ）	6	96	2	Compulsory
	I070105	HSK（Level Ⅲ）A	4	64	3	Compulsory
	I070106	HSK（Level Ⅲ）B	4	64	4	Compulsory
	Credits Requiremen		22 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
	PI010612	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
	AI010105	E-commerce Industry Research	2	32	1	Optional
	Credits Requirement		≥8 Credits			
Total Credits			≥49 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 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. 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.

商学院

国际工商管理硕士留学研究生培养方案

授予学位类别：管理学硕士学位

专业类别代码名称：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	22	专业课	30
必修环节	4	总学分	≥56
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	1010102	中国概况	2	32	1	必修
	1070103	汉语（一级）	6	96	1	必修
	1070104	汉语（二级）	6	96	2	必修
	1070105	汉语（三级）上	4	64	3	必修
	1070106	汉语（三级）下	4	64	4	必修
	应修		22 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			≥52 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

Award of Degree: Master of Management

Major Code and Name :1251 Business Administration

School: School of Business

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. Curriculum and Credits Requirements

Table 1 Description of total credits

Course Classification	Credits Requirement	Course Classification	Credits Requirement
Public Course	22	Discipline Core Course	30
Compulsory Part	4	Total Credits	⩾56
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	1010102	Chinese Culture	2	32	1	Compulsory
	I070103	HSK（Level Ⅰ）	6	96	1	Compulsory
	I070104	HSK（Level Ⅱ）	6	96	2	Compulsory
	1070105	HSK（Level Ⅲ）A	4	64	3	Compulsory
	1070106	HSK（Level Ⅲ）B	4	64	4	Compulsory
	Credits Requirement		22 Credits			
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			⩾52 Credits			

5. Teaching Language

English

6. Compulsory Part

There is a compulsory professional practice with 4 credit points. This professional practice is arranged

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

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 target and proposed solutions. The research proposal should be preached in the range of subjects, and solicit opinions extensively.

3. Mid-term examination of thesis

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

4. Content and form of thesis

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

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

6. Thesis defense and degree application

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

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.

国际经管学院

国际商务硕士留学研究生培养方案（国际经管学院）

授予学位类别：国际商务硕士专业学位

专业类别代码名称：0254 国际商务硕士

制订单位：国际经管学院

一、培养目标

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。

国际商务专业培养能够胜任在涉外企事业单位、政府部门、国际组织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。

二、领域简介与研究方向

国际商务专业于 2010 年获批专业硕士学位授予权，2014 年开始同时招收国内生和留学生。现有专任教师 6 人，其中教授 1 人，副教授 2 人，讲师 3 人，具有博士学位者 6 人，具有博士后研究经历者 2 人，硕士生导师 3 人。2021 年拟引进具有相关学科背景、良好的研究潜力和高质量教学能力的师资 2 人。同时聘任国内外知名专家学者担任客座教授和兼职教授，打造高水平、年轻化师资团队，现有客座教授 2 人，兼职教授 1 人。

国际商务硕士专业侧重于（1）从微观视角研究企业的跨国经营活动，其研究领域主要包括国际贸易实务、跨国经营管理、国际商务营销、国际投资管理、国际经济法律、国际商务谈判等方面；（2）从宏观视角研究“一带一路”倡议、数字经济背景下的国际经济与贸易合作，其研究领域主要包括国际贸易格局、科技与经济合作。

国际商务研究方向为“一带一路”国际合作。

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 56 学分。学分组成为：必修课程共计 41 学分，其中公共基础课程不少于 22 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	22	基础课	7
专业课	12	选修课	≥8
必修环节	7	总学分	≥56
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
	I070103	汉语（一级）	6	96	1	必修
	I070104	汉语（二级）	6	96	2	必修
	I070105	汉语（三级）上	4	64	3	必修
	I070106	汉语（三级）下	4	64	4	必修
	应修		22 学分			
基础课	PI170101	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
	PI170102	国际贸易地理	2	32	1	必修
	PI170103	数字贸易专题研讨（全英）	2	32	2	必修
	PI170104	研究方法与案例分析	2	32	1	必修
	PI170105	国际商务谈判（全英）	2	32	1	必修
	PI170106	国际商法（全英）	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
	PI010612	跨文化商务沟通	2	32	1	选修
	PI170107	国际贸易政策与 WTO 规则	2	32	2	选修
	PI170108	“一带一路”专题研讨	2	32	2	选修
	PI170109	数字经济	2	32	1	选修
	应修		≥8 学分			
课程总学分要求			≥49 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）

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。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（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 International Business Program

Award of Degree: Master of International BusinessProfessional Degree

Major Code and Name: 0254 Master of International Business

School: School of Economics (Major), School of International Economics and Management (Participate)

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

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 6 teachers in this major, including 1 professors, 2 associate professors, 3lecturers. We have 3 master supervisors.In 2021, it is planned to introduce 2 teachers with relevant subject background, good research potential and high-quality teaching ability. At the same time, well-known experts and scholars at home and abroad are hired as guest professors and part-time professors to build a high-level and young faculty team. There are currently 2 guest professors and 1 part-time professor.

MIBprogramfocuses on (1) multinational business activities of enterprises from a micro perspective. The research fields mainly include international trade practice, transnational business management, international business marketing, international investment management, international economic law, international business negotiation, etc.; (2) Economic and trade cooperation in the context of"Belt and Road" initiative and digital economyfroma macro perspective. The research fields mainly include international trade patterns, science and technology and economic cooperation.

The research direction is International Cooperationin the Belt and Road Region.

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 56credits, including 41 credits in compulsory courses and 8 credits in optional courses. The credits in compulsory courses include22 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	CreditRequirements	CourseClassification	Credit Requirements
Public Course	22	Basic Course	7
Professional Course	12	Optional Course	≥8
Practice	7	Total Credits	≥56
Note	Total credits = Course credits + Practice credits		

Table 2 Curriculum Setting and CreditsRequirements 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
	I070103	HSK（Level Ⅰ）	6	96	1	Compulsory
	I070104	HSK（Level Ⅱ）	6	96	2	Compulsory
	I070105	HSK（Level Ⅲ）A	4	64	3	Compulsory
	I070106	HSK（Level Ⅲ）B	4	64	4	Compulsory
	Credits Requirement		22 Credits			
Basic Course	PI170101	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
	PI170102	Geography of International trade	2	32	1	Compulsory
	PI170103	Seminar on digital trade	2	32	2	Compulsory
	PI170104	Research Method and Case studies	2	32	1	Compulsory
	PI170105	International Business Negotiation	2	32	1	Compulsory
	PI170106	International Business Law	2	32	2	Compulsory
	Credits Requirement		12 Credits			
Optionl Course	PI010605	International Marketing	2	32	2	Optional
	PI010611	International Settlement	2	32	2	Optional
	PI010612	Intercultural Communication	2	32	1	Optional
	PI170107	International Trade Policy and WTO Rules	2	32	2	Optional
	PI170108	Seminar on the “Belt and Road Initiative”	2	32	2	Optional
	PI170109	Digital economy	2	32	1	Optional
	Credits Requirement		≥8 Credits			
Total Credits			≥49 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 MIB program, students should participate in more than 5 lectures on the frontiertopic 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.

电商与物流学院

物流工程与管理硕士留学研究生培养方案

授予学位类别：工程管理硕士

专业类别代码名称：125604 物流工程与管理

专业领域名称：工程管理

制订单位：电商与物流学院

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。培养掌握本领域坚实的基础理论和系统性的专业知识，能够运用定量方法与现代信息技术解决物流工程领域的实际问题，具有独立承担物流工程规划与设计、物流系统开发与实施，以及物流工程运作与管理的专业能力，具备较高的综合素质、创新创业精神和职业素养的高级工程管理人才。

二、类别（领域）简介与研究方向

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、智慧供应链、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 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

课程类别	学分要求	课程类别	学分要求
公共课	10	基础课	≥4
专业课	6	选修课	≥8
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	A180202	商业数据分析	2	32	1	必修
	A180203	物流系统规划与设计	2	32	1	必修
	应修		4 学分			
专业课	A160318	人工智能与机器学习	2	32	1	必修
	P180101	物联网技术及应用	2	32	2	必修
	P180103	物流系统仿真	2	32	2	必修
	应修		6 学分			
选修课	P180102	物流信息系统	2	32	1	选修
	A180210	国际物流管理	1	16	2	选修
	A180212	物流运作管理	2	32	2	选修
	A180213	运输与仓储管理	2	32	1	选修
	A180103	数据库理论与技术	2	32	2	选修
	A180104	现代网络技术	2	32	1	选修
	应修		≥8 学分			
课程总学分要求			≥28 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）

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。

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 （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 Logistics Engineering and Management

1. Training Objectives

Persisting in the fundamental task of establishing morality and fostering people, our goal is to cultivate socialist builders and successors 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.

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 2 years, and the maximum duration of study is 4 years, and Advance graduation is allowed.

4. Curriculum and Credits Requirements

Course Classification	Credits required	Course Classification	Credits required
Public Course	10	Basic Courses	≥4
Professional courses	6	Optional course	≥8
Compulsory courses	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	A180202	Business Data Analytics	2	32	1	Compulsory
	A180203	Logistics system planning and design	2	32	1	Compulsory
	Credits Requirement		4 Credits			
Discipline Core Course	A160318	Artificial Intelligence and Machine Learning	2	32	1	Compulsory
	P180101	Internet of things technology and application	2	32	2	Compulsory
	P180103	Logistics System Simulation	2	32	2	Compulsory
	Credits Requirement		6 Credits			
Major Optional Course	P180102	Logistics Information System	2	32	1	Optional
	A180210	International Logistics Management	1	16	2	Optional
	A180212	Logistics Operations Management	2	32	2	Optional
	A180213	Transportation and Warehouse Management	2	32	1	Optional
	A180103	Database Theory and Technology	2	32	2	Optional
	A180104	Modern network technology	2	32	1	Optional
	Credits Requirement		≥8 Credits			
Total Credits			≥28 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.

法学院

法律硕士（法学）留学研究生培养方案

授予学位类别：法律硕士学位

专业类别代码：035102 法律硕士（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	22
	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		59

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
	I070103	汉语（一级）	6	96	1	必修
	I070104	汉语（二级）	6	96	2	必修
	I070105	汉语（三级）上	4	64	3	必修
	I070106	汉语（三级）下	4	64	4	必修
	应修		22 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			
	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			52 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
	I070103	HSK（Level Ⅰ）	6	96	1	Compulsory
	I070104	HSK（Level Ⅱ）	6	96	2	Compulsory

	I070105	HSK（Level Ⅲ）A	4	64	3	Compulsory
	I070106	HSK（Level Ⅲ）B	4	64	4	Compulsory
	Credits Requirement		22 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			52 Credits			

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.

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.

传媒与设计学院

新闻与传播硕士留学研究生培养方案

授予学位类别：新闻与传播硕士

专业类别代码名称：0552 新闻与传播

制订单位：传媒与设计学院

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。

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 45 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 12 学分；

（三）创新实践 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	22	基础课	5
专业课	4	选修课	≥12
必修环节	2	总学分	≥45

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
	I070103	汉语（一级）	6	96	1	必修
	I070104	汉语（二级）	6	96	2	必修
	I070105	汉语（三级）上	4	64	3	必修
	I070106	汉语（三级）下	4	64	4	必修
	应修		22 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
	PI010605	国际市场营销（经济学院）	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		≥12 学分			
必修环节	创新实践		1			必修
	专业实践		1	3 个月	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	
课程总学分要求			≥45 学分			

五、授课语言

英文。

六、必修环节（2 学分）

1.创新实践（1 学分）

专业学位研究生修学期间参加校内外举办的行业前沿讲座 2 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）

来华国际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。

研究生在导师指导下完成专业实践，并撰写实践学习总结报告。

七、培养环节及学位论文

国际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、答辩。

1.采用全日制研究生培养管理模式，实行课程学习、社会实践和学位论文三大环节相结合的培养方式。

2.课程教学采用模块式教学、案例式教学、专题研讨、工作坊、模拟训练多种教学方式。课程考核分为考试和考查两种形式，重在考察学生运用所学专业知识发现、分析和解决实际问题的能力。

3.实行校内外双导师制，以校内导师指导为主，校外导师由业界资深从业人员和有实际从业经验的校外专家组成。

4.定期聘请有实践经验的专家、专业人员开设讲座。

5.鼓励学生在读期间，参与各种具有影响力的竞赛和其他创新活动。

6.新闻与传播专业学位硕士研究生的学位论文应在导师指导下独立完成。学位论文内容应坚持理论联系实际的原则，着眼于解决实际与实务问题。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。

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

Type of degree awarded: Master of Journalism and Communication
Subject code name: 0552 Journalism and Communication
Institute: School of Communication & Design

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

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

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

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.

IV. Curriculum and Credits Requirements

For graduate students applying for this professional degree, the total credits shall not be less than 45

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 12 credits;

3.1 credit for innovative practice;

4.1 credits 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	22	General course	5
Major course	4	Optional course	⩾12
Compulsory	2	Total credits	⩾45

Course Types	Course Code	Course Name	Credit	Course Hours	Semester	Compulsory /Optional
Public	I010102	Chinese Culture	2	32	1	Compulsory
	I070103	HSK（Level Ⅰ）	6	96	1	Compulsory
	I070104	HSK（Level Ⅱ）	6	96	2	Compulsory
	I070105	HSK（Level Ⅲ）A	4	64	3	Compulsory
	I070106	HSK（Level Ⅲ）B	4	64	4	Compulsory
	Credits Requirement		⩾22 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 Advertising Issues	2	32	2	Optional
	PI070108	Economic News Practice	2	32	2	Optional
	PI070109	Brand Communication Planning	2	32	2	Optional
	PI010605	International Marketing (Economic School)	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		≥12 Credits			
Compulsory	Innovative Practice		1			Compulsory
	Professional Practice		1	3-month	3-4	Compulsory
	Credits Requirement		2 Credits			
Thesis	Master Thesis Proposal				2-3	
	Mid-term examination				3	
	Master Thesis				4	
Total Credits			45 Credits			

V. Teaching language

English.

VI. Compulsory courses (2credits)

1.Innovative Practice (1 credit)

During the study period of the program, students should participate in more than 2 lectures on the frontier topic of the industry held on campus, or participate in discipline competition for more than 1 time. The practice activities should be checked and approved by the supervisor.

2. Professional practice (1 credits)

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 the practical learning report.

VII. The Thesis Related Work

The training process and relevant thesis works include research proposal defense, mid-term examination and final defense.

1. We adopt a full-time postgraduate training model, and implement a training method that combines curriculum learning, social practice and thesis writing.

2. We adopt a variety of teaching methods, such as modular teaching, case-based teaching, seminars, workshops, and simulation training, etc. In teaching activities, we pay attention to bridge the gap between theory and practice, and enhance students' operational capabilities. Course assessment is divided into two forms: examination and inspection, focusing on the ability of students to use their professional knowledge to discover, analyze and solve practical problems.

3. The dual-tutor system inside and outside the school is implemented. Studies are mainly guided by the instructor of the school, and the external tutor is composed of senior practitioners in the industry and off-campus experts with practical experience.

4. We will regularly invite experienced experts and professionals to deliver lectures.

5. Students are encouraged to participate in a variety of influential competitions and other innovative activities during their studies.

6. 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.

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 professional degrees (fields), prerequisites courses, main teaching content and course hours allocation, references, etc.