

目 录

机械工程学院/材料科学与工程学院-----	5
School of Mechanical Engineering/School of Materials Science and Engineering-----	5
数学与统计学院/理学院/航天航空学院-----	19
School of Mathematics and Statistics/School of Science/School of Aerospace Engineering-----	19
能源与动力工程学院/化学工程与技术学院/人居环境与建筑工程学院-----	47
School of Energy and Power Engineering/School of Chemical Engineering and Technology/School of Human Settlements and Civil Engineering-----	47
经济与金融学院/金禾经济研究中心-----	67
School of Economics and Finance/Jinhe Center for Economic Research-----	67
电子与信息学部-----	91
Faculty of Electronic and Information Engineering-----	91
电气工程学院-----	113
School of Electrical Engineering-----	113
法学院-----	123
School of Law-----	123
公共政策与管理学院-----	139
School of Public Policy and Administration-----	139
前沿科学技术研究院-----	153
Frontier Institute of Science and Technology-----	153
人文社会科学学院/马克思主义学院-----	169

School of Humanities and Social Science /School of Marxism-----	169
生命科学与技术学院-----	177
School of Life Science and Technology-----	177
医学部-----	189
Health Science Center-----	189
管理学院-----	239
School of Management-----	239
外国语学院-----	255
School of Foreign Studies-----	255

西安交通大学

国际研究生培养



研究生院

二〇二一年七月

机械工程学院/材料科学与工程学院

***School of Mechanical Engineering/School of
Materials Science and Engineering***

机械工程学院/材料科学与工程学院

School of Mechanical Engineering/School of Materials Science and Engineering

机械材料类国际研究生中英文培养方案

International Graduate Programs in Mechanical Engineering and Materials Science

一、培养目标 (Program objectives)

机械工程学院与材料科学与工程学院提供的硕士培养旨在帮助国际学生获得机械工程和材料科学与工程领域的相关知识和技能,进而与学生的学习要求相匹配,并为其取得相应事业成功或进一步深造奠定坚实的基础。在整个培养过程中,学生将通过课程学习、实验室实践、专题研究等培养方式,发展和提升其自主研究,培养分析、设计和实验能力。

The Master's program offered by the School of Mechanical Engineering (ME) and School of Materials Science and Engineering (MSE) aims to help the students to gain knowledge and skills in the related field that match their interest, and to build solid foundation for a successful career in professional mechanical/material science and engineering or pursuing higher academic degree program. In this program, the students will develop their analyzing, designing and experimental abilities through course studies, lab activities, specific studies, and independent research, etc.

博士培养旨在培养学生的全面素质,帮助他们获得学术和道德上的双重荣誉。通过培训、博士候选人应该牢固地掌握基础理论和系统的专业知识,能够独立的科学研究和教学,获得创新成果在机械工程,材料科学与工程,展示科学态度,努力解决科技问题严谨和务实。

The Doctoral program aims at cultivating the all-around qualities in doctoral candidates, helping them to achieve both academic and moral excellence. Through the training, doctoral candidates should have a firm grasp of the basic theories and systematic, specialized knowledge, be capable of independent scientific research and teaching, gain innovative achievements in Mechanical Engineering, Materials Science and Engineering, demonstrate scientific attitude, and strive to resolve science and technology difficulties in a rigorous and pragmatic way.

二、研究方向 (Research fields)

- 1、机械工程, Mechanical Engineering.
- 2、材料科学与工程, Materials Science and Engineering.

三、学习年限 (Length of programs)

硕士全日制项目为期两年,包括一年的课程学习和一年的课题研究,并提交论文完成。申请

经批准后,可延长至三年。

The full-time Master's program lasts two years, consisting of one-year course studies and one-year project research completed with the submission of thesis. The duration can be extended to three years after approval is granted.

博士全日制课程至少持续三年。学制可延长至六年。

The full-time PhD program lasts at least three years. The duration can be extended to six years.

四、培养方式 (Program overview)

1 导师应根据本培养方案的要求与因材施教的原则,从各个学生具体情况出发,在学生入学后制定培养计划。

Supervisors should follow the instructions of this document and make an individual study plan for the students after their registration at the School of International Education.

2 整个培养过程应贯彻理论联系实际的方针,使学生掌握本学科的基础理论和专门知识,掌握科学研究的基本方法,并有一定的实验技能。

Student education should combine theoretical and practical aspects. The students should master fundamental theories, professional knowledge, as well as basic methods of scientific research, and have certain experimental skills.

3 学生应当积极参加校内外的学术报告会、讲座会及其他学术活动。

Students should actively participate scientific conferences, seminars, and other forms of academic activities.

4 硕士生和博士生培养实行中期考核。硕士生第三学期由导师/系所组织一次中期考核,考核通过者继续攻硕;未通过者,可以参加下学期的中期考核。博士生第四学期由系所组织一次中期考核,考核通过者继续攻博;未通过者,可以参加下学期的中期考核。

Both Master's and PhD programs have a mid-term assessment. For Master's candidates, mid-term assessment will be organized by the student supervisor or department in third semester; for PhD students, mid-term assessment will be organized by the student supervisor or department in fourth semester. Students who pass the assessment can continue studying; whereas those who fail the assessment may take the next examination in the next semester.

5 在完成学位课程学习和大量阅读具体研究方向上的国内外学术论文并进行初步研究探索之后,博士生应当在第二学期末进行学位论文选题报告。

After finishing courses and intensive literature survey of certain research field followed by preliminary research, the doctoral students should complete the dissertation proposal at the end of the second semester.

五、课程学习 (Course work)

根据《西安交通大学国际研究生按类培养实施细则》(以下简称《细则》)确定本学科国际硕士或博士研究生相关课程和学分要求,并制定详细列表。新港报告纳入国际留学生选修课,学生听够 20 场讲座后可记 2 学分。

机械工程及材料科学与工程国际硕士研究生课程设置和学分要求

Curriculum Design and Credit Requirements of Master's Degree Programs

in ME and MSE

(一) 硕士研究生(Master programs)

机械工程硕士学位以及材料科学与工程硕士学位课程学习应至少取得 24 学分，包括：公共课（汉语（I）2 学分、中国概况（I）2 学分）4 学分、专业学位课至少 8 学分，选修课至少 12 学分。

The academic Master's programs of Master of Mechanical Engineering and Master of Material Science and Engineering consist of at least 24 credits for course work. Required courses include *Comprehensive Chinese I* (2 credits), *Outline of China I* (2 credits), degree courses (no less than 8 credits), and elective courses (no less than 8 credits). Innovation Harbour Lectures are included in elective courses for international students, 2 credits will be granted after attending 20 Lectures.

必修环节包括：学术活动（讲座）1 学分、中期考核 3 学分。

Other compulsory activities include academic lectures (1 credit) and mid-term assessment (3 credits).

课程类型 Course Type	序号 NO.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Note
公共学位课 Public Course	1	272003	LITE610112	中国概况（I） Outline of China I	2	必修 4 学分 4 credits required
	2	272004	LITE610227	综合汉语（I） Comprehensive Chinese I	2	
机械工程专业学位课 Degree Course for ME	1	012191	MACH640101	现代测量技术 Modern Measurement Technology	2	至少修 8 学分 A minimum of 8 credits required
	2	012197	MACH640401	振动理论 Theory of Vibration	2	
	3	012196	MACH641001	现代控制工程 Modern Control Engineering	2	
	4	071001	MATH600807	计算方法（留学生） Computational Method (Foreign Students)	3	

	5	012200	MACH641201	微纳制造技术 Micro/Nano Manufacturing Technologies	2	
	6	012202	MACH640501	数控装备技术 Numerical Control Equipment Technologies	2	
	7	012192	MACH640201	CAD/CAM/CAE理论与应用 (A) Theory and Application of CAD/CAM/CAE (A)	2	
材料科学与工程 专业学位课 Degree Course for MSE	1	022038	MATL750302	固态相变 Phase Transitions in Solids	2	至少修8 学分 A minimum of 8 credits required
	2	022049	PHYS740102	固体物理 Solid State Physics	2	
	3	022050	MATL740202	材料科学前沿 Frontiers of Materials Science	2	
	4	022035	MATL712102	材料结构性能关系 Structure-property Relations of Materials	2	
	5	022052	MATL740402	电子显微镜及其在材料科学中的应用 Electron Microscopy and Its Application in Materials Science	2	
	6	071001	MATH600807	计算方法 (留学生) Computational Method (Foreign Students)	3	
	7	022053	MATL740502	先进能源材料 Advanced Energy Materials	2	
选修课 Elective Course	1	012193	MACH740301	增材制造技术 Additive Manufacturing Technology	2	至少修 12 学分 A minimum of 12 credits
	2	012199	MACH641301	机械故障诊断 Fault Diagnosis for Machinery		

	3	012201	MACH640801	工程摩擦学 Engineering Tribology	2
	4	012203	MACH641101	精密定位系统的理论与设计 Theory and Design of Precision Positioning Systems	2
	5	012194	MACH740401	微机电系统与传感器 MEMS and Sensors	2
	6	012204	MACH640601	生物机电一体化技术 Bio- mechatronics Technology	2
	7	013705	MACH741001	电活性功能材料与结构导论特性与应用 Electroactive polymer materials and structures properties and applications	2
	8	013735	MACH641701	高级塑性成形技术 Advanced Plastic Forming Technology	2
	9	013736	MACH641801	生物仿生工程基础及应用 Foundation and Applications of Biomimetic Engineering	2
	10	022021	MATL711302	智能材料 Smart Materials	2
	11	022053	MATL740502	先进能源材料 Advanced Energy Materials	2
	12	022026	MATL711702	材料微观缺陷理论 Theory of Defects in Materials	2

	13	023001	MATL712902	材料物理性能 Physical Properties of Materials	2	
	14	023017	MATL740702	激光加工原理及激光材料加工技术 Laser Processing Principles and Laser Materials Processing Technology	2	
	15	012190	MACH740201	纳米表面工程与摩擦学 Nano-surface Engineering and Tribology	2	
	16	012211	MACH741101	先进医疗器械设计方法论 Design Methodology of Advanced Medical Devices	2	
	17	013753	MACH741201	小波变换及工程应用 Wavelet Transform with Application in Engineering	2	
	18	013755	MACH741401	智能材料与结构 Smart Materials and Structures	2	
	19	012189	MACH740101	有限元仿真及应用 Finite Element Analysis and Application	2	
	20	013754	MACH741301	机械工程表面概论 Fundamentals of Mechanical Surface Engineering	2	
必修环节 Compulsory Activity for ME & MSE	1	001997	BXHJ600399	学术活动(讲座)(硕) Lectures (Master)	1	必修4学分 4 credits required
	2	001983	BXHJ600799	中期考核 Mid-term Assessment	3	

(二) 国际博士研究Th(Doctoral Programs)

机械工程博士学位以及材料科学与工程博士学位课程学习应至少取得 12 学分，包括：公共课（汉语（II）2 学分、中国概况（II）2 学分）4 学分、专业学位课至少 4 学分，选修课至少 4 学分。

The PhD programs in Mechanical Engineering and Materials Science and Engineering consist of at least 12 credits for course work. Required courses include *Comprehensive Chinese II* (2 credits), *Outline of China II* (2 credits), degree courses (no less than 4 credits), and elective courses (no less than 4 credits). Innovation Harbour Lectures are included in elective courses for international students, 2 credits will be granted after attending 20 Lectures.

必修环节包括：学术活动（讲座）2 学分、开题报告 2 学分、中期考核 6 学分。

机械工程及材料科学与工程国际博士研究生课程设置和学分要求 Curriculum Design and Credit Requirements of Doctoral Degree Programs in ME and MSE

课程类型 Course Type	序号 NO.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Note
公共学位课 Public Course	1	121069	LITE610112	中国概况（II） Outline of China II	2	必修 4 学分 4 credits required
	2	271001	LITE610227	综合汉语（II） Comprehensive Chinese II	2	
机械工程专业学位课 Degree Course for ME	1	012190	MACH740201	纳米表面工程与摩擦学 Nano-surface Engineering and Tribology	2	至少修4学分 A minimum of 4 credits required
	2	031002	ENPO700103	数值传热学 Numerical Heat Transfer	3	
	3	012192	MACH640201	CAD/CAM/CAE 理论与应用（A） Theory and Application of CAD/CAM/CAE (A)	2	
	4	012196	MACH641001	现代控制工程 Modern Control Engineering	2	
	5	012199	MACH641301	机械故障诊断 Fault Diagnosis for Machinery	2	

	6	012194	MACH740401	微机电系统与传感器 MEMS and Sensors	2	
	7	012189	MACH740101	有限元仿真及应用 Finite Element Analysis and Application	2	
	8	013754	MACH741301	机械工程表面概论 Fundamentals of Mechanical Surface Engineering	2	
材料科学与工程 专业学位课 Degree Course for MSE	1	022038	MATL750302	固态相变 Phase Transitions in Solids	2	至少修 4 学分 A minimum of 4 credits required
	2	022049	PHYS740102	固体物理 Solid State Physics	2	
	3	022050	MATL740202	材料科学前沿 Frontiers of Materials Science	2	
	4	022035	MATL712102	材料结构性能关系 Structure-property Relations of Materials	2	
	5	022052	MATL740402	电子显微镜及其在材料科学中的应用 Electron Microscopy and its Application in Materials Science	2	
	6	091002	MATH600107	计算方法 (A) Computational Method A	3	
	6	091002	MATH600107	计算方法 (A) Computational Method A	3	
选修课 Elective Course	1	012193	MACH740301	增材制造技术 Additive Manufacturing Technology	2	至少修 4 学分 A minimum of 4 credits required
	2	012200	MACH641201	微纳制造技术 Micro/Nano Manufacturing Technologies	2	
	3	012201	MACH640801	工程摩擦学 Engineering Tribology	2	
	4	012202	MACH640501	数控装备技术 Numerical Control Equipment Technologies	2	
	5	012203	MACH641101	精密定位系统的理论与设计 Theory and Design of Precision Positioning Systems	2	
	6	012204	MACH640601	生物机电一体化技术 Bio-mechatronics Technology	2	

	7	013705	MACH741001	电活性功能材料与结构导论 特性与应用 Electroactive polymer materials and structures properties and applications	2			
	8	013735	MACH641701	高级塑性成形技术 Advanced Plastic Forming Technology	2			
	9	013736	MACH641801	生物仿生工程基础及应用 Foundation and Applications of Biomimetic Engineering	2			
	10	022021	MATL711302	智能材料 Smart Materials	2			
	11	022053	MATL740502	先进能源材料 Advanced Energy Materials	2			
	12	022026	MATL711702	材料微观缺陷理论 Theory of Defects in Materials	2			
	13	023001	MATL712902	材料物理性能 Physical Properties of Materials	2			
	14	023017	MATL740702	激光加工原理及激光材料加工技术 Laser Processing Principles and Laser Materials Processing Technology	2			
	15	012191	MACH640101	现代测量技术 Modern Measurement Technology	2			
	16	012197	MACH640401	振动理论 Theory of Vibration	2			
	17	012211	MACH741101	先进医疗器械设计方法论 Design Methodology of Advanced Medical Devices	2			
	18	013753	MACH741201	小波变换及工程应用 Wavelet Transform with Application in Engineering	2			
	19	013755	MACH741401	智能材料与结构 Smart Materials and Structures	2			
	必修环节 Compulsory Activity for ME & MSE	1	001999	BXHJ800399	学术活动(讲座)(博) Lecture (Doctor)		2	必修10学分 10 credits required
		2	001986	BXHJ800499	开题报告 Dissertation Proposal		2	
		3	001994	BXHJ800199	中期考核 Mid-term Assessment		6	

in different periods, requirements and completion deadlines, etc. During the process of scientific research, doctoral candidates should present a progress report on the meeting organized by the relevant departments.

1. 学术活动（讲座）（Lectures）

国际硕士研究生学术活动（讲座）分为必听讲座和选听讲座。必听讲座包括“科学道德与学风建设”1次、“普通学术讲座”1次；选听讲座包括与学科紧密相关的“学科前沿系列专题讲座”（由各二级学科组织若干教授对本学科前沿知识进行讲座，每个讲座由5个以上讲座组成）一个系列和在全校范围内选听“学术讲座”1次，完成全部8个讲座后记1学分。

Master's degree students are required to attend 8 lectures, including 2 compulsory ones (one on Scientific Morality and Construction of Study Style, and one general academic lecture), 1 optional serial lecture on specific topics of frontiers knowledge closely related to the respective disciplines (professors of second-level disciplines are organized to offer lectures, and each lecture series include 5 specific lectures) and 1 elective academic lecture in the university. Students will obtain 1 credit with full attendance to 8 lectures.

国际博士研究生学术活动（讲座）分为必听讲座和选听讲座。必听讲座为“科学道德与学风建设”；选听讲座包括与学科紧密相关的“学科前沿系列专题讲座”（由各二级学科组织若干教授对本学科前沿知识进行讲座，每个讲座由5个以上讲座组成）一个系列和在全校范围内选听“学术讲座”1次，自己公开讲座1次，完成后记2学分。

Doctoral students are required to attend 7 lectures, including one compulsory lecture (one on Scientific Morality and Construction of Study Style), 1 optional serial lecture on specific topics of frontiers knowledge closely related to the respective disciplines (professors of second-level disciplines are organized to offer lectures, and each lecture series include 5 specific lectures) and 1 elective academic lecture in the university. In addition, they are required to give a lecture. Students will obtain 2 credits by completing the whole series of activities.

2. 论文（Thesis / Dissertation）

申请硕士学位需要完成一篇符合各项要求的论文。论文应基于个人或团队合作的研究项目，在此之中每个学生都拥有自己的角色和责任。相关课题研究通过解决工程问题，使学生将课程学习与实践经验相结合。

A satisfactory thesis is required when a master's candidate applies for a Master's degree. The thesis will be based on an individual or team-working research project in which each student has a defined role and responsibility. The project leading to the thesis enables the students to combine course studies with practical experience by solving engineering problems.

申请博士学位的论文应在导师指导下完成。需要通过文献阅读和调查来确定研究的主题和范围。博士生应充分发挥导师和自己的长处，在研究领域做出创造性的成绩。

Doctoral dissertation should be completed under the guidance of the supervisor. The research topic and scope need to be identified through literature reading and investigation. PhD candidates should draw on the advantages of their supervisors and themselves to make creative achievement in their research field.

学生应在第二学期开始时准备材料，并在第二学期结束时确定初步论文主题。提案报告必须完成并在教研组会议上报告，征求意见。在第三学期开始时，应确定期末课题和论文工作计划，包括不同时期的主要内容、要求和完成期限等。在科研过程中，博士生应向相关部门提交会议进度报告。

Students should prepare materials at the beginning of the second semester and identify the preliminary topic by the end of the second semester. The proposal report must be finished and reported at the conference of teaching and research section to seek for evaluation and opinions. At the beginning of the third semester, final topic and paper work plan should be identified and worked out, including main content

每位博士研究生必须以第一作者或第二作者(导师为第一作者时)的身份在期刊上发表一篇研究论文，并以西安交通大学为发表单位。期刊水平应符合研究生院或更高层次的要求。论文应与毕业论文紧密相关。

Each doctoral candidate is required to publish a research paper in periodicals as the primary author or the second author (the supervisor being the primary author) with Xi'an Jiaotong University (XJTU) as the signed unit. The level of the periodicals should meet the standard set by the Graduate School or meet even higher levels. The journal articles should be closely related to the graduation dissertation.

研究生毕业论文的工作量、篇幅和形式应符合西安交通大学学位论文的要求。论文在理论指导和计算上应简洁、严谨、准确。演讲应以务实的科学态度进行。

The workload, length and form of graduate thesis /dissertation should be in line with the requirements of the dissertation of XJTU. The dissertation should be concise, rigorous and accurate in theoretical guidance and computation. The presentation should be conducted with a pragmatic scientific attitude.

论文匿名评审需要五名熟悉研究领域的高级职称评审人员。至少有一名评审人员应来自其他大学。答辩需经审稿人同意后方可进行。如果一个审稿人不同意，应该添加另一个审稿人；如果有两名评审人员拒绝论文，申请人必须修改其论文，并在论文答辩前重新申请评审程序。

The anonymous review of the dissertation requires five reviewers with senior titles who are familiar with the research field. At least one reviewer should come from other university. The oral defense can only be conducted after the dissertation passes the reviewing by the reviewers. If one reviewer disapproves the dissertation, another reviewer should be added; if two reviewers reject the paper, the applicant must revise his or her dissertation and go through the review process another time before taking oral dissertation defense.

论文必须经过两个过程：评审和答辩。毕业生在进行答辩时，应回答与论文相关的问题，并表现出对专业基础理论和专业知识的掌握。

In oral defense for his or her thesis / dissertation, the candidate is supposed to answer questions related to the thesis / dissertation and demonstrate his or her mastery of basic professional theories and specialized knowledge.

七、培养环节时间节点(Timeline and milestones)

	课程学习 Course Work	开题报告 Dissertation proposal	中期考核 Mid-term Assessment	预答辩 Pre-Oral Defense Reporting	论文答辩 Oral Thesis / Dissertation Defense
硕 士 Master's program	第一学年 First academic year	第二学期 Second semester	第三学期 Third semester	第四学期/最后一 个学期Fourth semester/Last semester	第四学期/最后一 个学 期 Fourth semester/Last semester
博 士 Doctoral program	第一学年 First academic year	第二学期 Second semester	第四学期 Fourth semester	第六学期/最后一 个学期 Sixth semester/Last semester	第六学期/最后一 个学期 Sixth semester/Last semester

数学与统计学院/物理学院/化学学院/航

天航空学院

*School of Mathematics and Statistics School of
physics/School of Chemical Engineering and
Technology/School of Aerospace Engineering*

数学与统计学院/物理学院/化学学院/航天航空 学院

**School of Mathematics and Statistics/School of physics/School of
Chemical Engineering and Technology/School of Aerospace Engineering**

数理力学类国际研究生培养方案

International Graduate Programs in Mathematics, Physics and Mechanics

★ 硕士研究生培养方案 (Masters Programs)

一、培养目标 (Program objectives)

本培养方案旨在培养德、智、体全面发展的综合性专业人才。具体要求如下:

This program is to educate students to develop all-roundly in morality, intelligence and physique.

Specific requirements for the candidates are as follows:

1. 遵纪守法, 具有良好的思想品德、实事求是以及科学严谨的治学态度和优秀的学术道德;

Comply with the regulations and laws, attain good ideological quality and moral character, develop realistic and scientific and rigorous academic attitude, and follow excellent academic ethics.

2. 在专业领域掌握坚实的基础理论、科学研究方法和系统的专业知识, 具有从事科学研究和教学工作的能力;

Master solid basic theories, scientific research methods and systematic professional knowledge in the professional field, and have the ability to conduct independent scientific research and teaching work.

3. 掌握一门外国语, 能熟练地阅读专业文献, 撰写学位论文。

Master a foreign language, be able to read professional literature skillfully, and write their dissertation.

二、研究方向 (Research fields)

数学 Mathematics:

非线性泛函分析及应用 Nonlinear Functional Analysis and Application;

偏微分方程理论及应用 Theory and Application of Partial Differential Equations;

数论及其应用 Number Theory and Its Application;

几何分析 Geometric Analysis; 非线性微分方程 Nonlinear Differential Equation;

格上拓扑与非经典数理逻辑 Topological and Non-classical Mathematical Logic;

孤立子与非线性可积系统 Solitons and Nonlinear Integrable Systems;

偏微分方程的新型时空并行方法 A New Spatiotemporal Parallel Method for Partial Differential Equations;

大规模科学计算 Large-scale Scientific Computing;

连续介质力学数学方法与计算 Mathematical Method and Calculation of Continuum Mechanics;

计算物理与计算流体 Computational Physics and Computational Fluids;

流体的高性能数值算法与应用 High Performance Numerical Algorithms and Application of Fluids;

近代优化理论、算法及应用 Theory, Algorithm and Application of Modern Optimization Method;

金融风险度量与金融最优化 Financial Risk Measurement and Financial Optimization;

图论与组合最优化 Graph Theory and Combination Optimization;

有限元分析及其应用 Finite Element Analysis and Its Application;

矩阵理论与数值代数 Matrix Theory and Numerical Algebra;

生物数学 Biological Mathematics;

随机动力学理论及应用建模 Stochastic dynamics theory and application modeling;

计算智能与信息技术的数学基础 Mathematical Basis of Computational Intelligence and Information Technology;

机器感知与信息处理的数学基础 Mathematical Basis of Machine Perception and Information Processing;

智能控制理论与应用 Theory and Application of Intelligent Control;

大型复杂系统瞬态计算理论 Transient Computing Theory for Large and Complex Systems;

智能计算与数据挖掘 Intelligent Computing and Data Mining;

机器学习 Machine Learning;

图像处理与分析中的数学方法 Mathematical Methods in Image Processing and Analysis;

大数据与分布式计算 Big Data and Distributed Computing;

无线通信系统的数学理论与分析 Mathematical Theory and Analysis of Wireless Communication System。

统计学 Statistics:

概率论与随机过程 Probability Theory and Stochastic Processes;

非参数统计 Nonparametric Statistics;

时间序列分析 Time series analysis;

数据科学基础与大数据分析 Data Science Essentials and Big Data Analysis;

空间数据分析 Spatial Data Analysis;

生物统计学 Biostatistics;

贝叶斯统计 Bayesian Statistics;

高维统计推断 High-dimensional Statistical Inference;

统计机器学习 Statistical Machine Learning;

计算统计学 Computational statistics;

金融统计与量化交易 Financial Statistics and Quantitative Transactions。

物理学 Physics:

1. 理论物理 theoretical physics

量子信息 quantum information;

量子场论 quantum field theory;

低维系统的结构与物理性质 Structure and Physical Properties of Low Dimensional Systems;

强关联系统 strong correlation system;

数学物理 mathematical physics。

2. 光学 optics

量子光学 quantum optics;

非线性光学 nonlinear optics;

空间光学 space optics;

成像光谱技术 imaging spectroscopy technology;

激光及其应用 laser and its application;

固体光谱学 solid state spectroscopy;

光学功能材料 optical functional materials;

光学测量 optical measurement;

光纤传感及通信技术 optical fiber sensing and communication technology;

光电子学及器件设计 photoelectronics and device design。

3. 凝聚态物理 condensed matter physics

固体的光学性质 optical properties of solids;

纳米功能材料 functional nanomaterials;

纳米管结构与物理性质 structure and physical properties of nanotubes;

磁学与磁性材料 magnetism and magnetic materials;

电子材料与器件 electronic materials and devices;

激光与物质相互作用 interaction between laser and matter。

4. 原子与分子物理 atomic and molecular physics

原子与分子的高激发态能级结构 Energy level structures of highly excited states of atoms and molecules;

新型光谱转换和存储材料 New spectral conversion and storage materials;

日光与大气相互作用 Interaction between solar and atmosphere;

太阳能功能材料与应用技术 Solar energy functional materials and application technology;

纳米金属粒子的电子能级结构和光电性质 electronic energy level structure and photoelectric properties of metal nanoparticles。

化学 Chemistry:

1. 无机化学 Inorganic chemistry

无机纳米化学 Inorganic nanochemistry;

无机-有机杂化材料 Inorganic-organic hybrid materials;

低维纳米材料研究 Low-dimensional nanomaterials;

物理无机化学 Physical inorganic chemistry;

2. 有机化学 Organic chemistry

有机氟化合物的合成与表征 Synthesis and characterization of organofluorine compounds;

生物碱的全合成 Total synthesis of alkaloids;

功能有机光电子材料 Functional organic optoelectronic materials;

过渡金属催化的串联 Transition metal catalyzed series connection;

烯烃环氧化及催化剂 Olefin epoxidation and catalysts;

手性药物合成及手性催化研究 Chiral drug synthesis and chiral catalysis;

食品中活性成分对人体健康的促进作用 Promoting effect of active ingredients in food on human health;

3. 物理化学 Physical chemistry

有机催化反应的分子模拟 Molecular simulation of organic catalytic reaction;

表面催化反应的分子模拟 Molecular simulation of surface catalytic reaction;

功能碳纳米材料的理论研究 Theoretical study on functional carbon nanomaterials;

催化动力学机理研究 Catalytic kinetics mechanism;

4. 分析化学 Analytical chemistry

纳米材料界面电化学 Interface electrochemistry of nanomaterials;

生物电化学检测 Bioelectrochemical detection;

发光分析 Luminescence analysis;

药物分析 Pharmaceutical analysis;

天然抗氧化活性成分分析方法学 Methodology of component analysis of natural antioxidant activities;

天然高分子化合物分析研究 Analysis of natural polymer compounds;

5. 高分子化学与物理 Polymer chemistry and physics

导电高分子材料 Conductive polymer materials;

大分子自组装 Self-assembly of macromolecules;

含氟聚合物的合成、表征与应用 Synthesis, characterization and application of fluorinated polymers;

高分子水凝胶 Polymeric hydrogel;

功能高分子材料 (包括生物材料) Functional polymer materials;

电子材料 Electronic materials;

微纳米多相高分子 Micro-nano multiphase polymer;

新型聚合磷光材料 New polyphosphorescent materials;

聚合物增韧及机理研究 Toughening and mechanism of polymers;

高分子阻尼减震材料 Polymer damping and shock absorbing materials;

高性能涂膜材料的分子设计与性能调控 Molecular design and performance regulation of high performance coating materials。

力学、航空宇航科学与技术专业

Mechanics; Aeronautical and Astronautical Science and Technology:

结构/材料破坏机理和强度理论 Structure/ materials failure mechanism and strength theory;
多场耦合理论与结构轻量化 Multi-field coupling theory and structural lightweight design;
结构完整性与装备安全理论与技术 Theory and technology in structural integrity and security;
动力学与控制现代理论 Modern theories in dynamics and control;
流体力学与流固耦合 Fluid mechanics and fluid-solid coupling theory;
飞行器设计 Aircraft design;
先进飞行器导航、制导与控制 Theories in advanced aircraft navigation, guidance, and control;
航空宇航推进理论与工程 Aerospace propulsion theory and engineering;
航空宇航制造工程 Aerospace manufacturing engineering.

三、学习年限 (Length of programs)

国际硕士研究生学习年限一般为 2-3 年。
The length of Masters' programs is 2-3 years.

四、培养方式 (Program overview)

1. 硕士生培养实行导师负责制。可以根据培养工作的需要建立以导师为核心的指导小组，协助导师指导研究生。

The tutor-responsibility system is adopted in the education of Masters students. According to the needs of training work, a guidance group can be set up with a tutor as the core supervisor in guiding Master's students academically.

2. 指导教师应根据本培养方案和学生的个人情况，在学生入学前制定出培养计划，内容包括：研究方向、课程学习、文献阅读、选题报告、科学研究、学术交流、学位论文等方面的要求和进度计划。学生入学后两周内可以根据本人的具体情况对培养计划进行局部调整。

According to this training program and individual students' conditions, the supervisor should formulate a training plan after the student is registered. The contents of this plan include research field, course-learning, literature reading, dissertation proposal, scientific research, academic exchange, dissertation and other requirements and progress plans. Students can adjust their training plan according to their individual conditions within two weeks after enrollment.

3. 硕士生应通过课程学习加深理论基础，扩大知识面。课程学习多采用启发式、研讨式的教学方式，以自学为主，培养其独立分析和解决问题的能力。研究生应按照培养计划在第一至三学期内完成所有课程学习。

Masters students will deepen their theoretical foundation and expand their knowledge through course-learning. The course-learning mostly adopts heuristic and seminar teaching methods, and with student self-study as basis to cultivate students' ability to independently analyze and solve problems. Postgraduates should complete all courses in the first three semesters according to the training plan.

4. 硕士生第四学期末进行中期考核。考核通过者，继续攻读学位；不通过者，可参加下一次的考核，再次考核不通过者，予以分流处理。

At the end of the fourth semester, the graduate students will take the mid-term assessment. Those

who pass the assessment shall continue to study for a degree; those who fail may take part in the next mid-term assessment, and those who fail the second assessment will be made terminate their program.

五、课程学习(Course work)

理工类学术学位硕士生的课程学习应至少取得 24 学分，包括：公共课（汉语（I）2 学分、中国概况（I）2 学分）4 学分、专业学位课至少 8 学分，选修课学分根据专业学位课、总学分要求设置。新港报告纳入国际留学生选修课，学生听够 20 场讲座后可记 2 学分。

The academic Masters programs in Science and Engineering consist of at least 24 credits for course work. Required courses include *Comprehensive Chinese I* (2 credits), *The Outline of China I* (2 credits), degree courses (no less than 8 credits), and elective courses (set by degree requirements). Innovation Harbour Lectures are included in elective courses for international students, 2 credits will be granted after attending 20 Lectures.

必修环节包括：学术活动（讲座）1 学分、中期考核 3 学分。

Other compulsory activities include academic lectures (Masters) (1 credit) and mid-term assessment (3 credits).

国际硕士研究生课程设置和学分要求

Curriculum Design and Credit Requirements of Master Programs

课程类型 Course Type	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes	
公共学位课 Public Course	1	272003	LITE610112	中国概况（I） The Outline of China I	2	必修 4 学分 4 credits required	
	2	272004	LITE610227	综合汉语（I） Comprehensive Chinese I	2		
专业学位课 Degree Course	1	092051	MATH61030 7	非线性分析 Nonlinear Analysis	3	必修 9 学分 9 credits required	数学专业 Mathematics major
	2	092052	MATH61040 7	代数学 Algebra	3		
	3	092083	MATH71170 7	黎曼几何 Riemannian Geometry	3		
	4	072142	STAT711207	高等概率论 Advanced Measure Theory	3	必修 9 学分 9 credits required	统计学专业 Statistics major
	5	092049	STAT711507	高等数理统计 Advanced Mathematical Statistics	3		
	6	092047	STAT611007	随机过程理论 Theory of	3		

课程类型 Course Type	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes	
				Stochastic Processes			
	7	091003	MATH60020 7	计算方法 B Computational Method B	3		
	8	062123	AASP711106	旋转机械动力学 Dynamics of Rotating Machines	2		
	9	062125	AASP711206	飞行动力学 Flight Dynamics	2		
	10	062127	INSM610706	机械测量与无损检测 Electromagnetic Nondestructive Testing and Evaluation	2		
	11	062128	AASP111106	超高速空气动力学 Hypersonic Aerodynamics	2	至少修 8 学分 A minimum of 8 credits required	力学、航空 宇航科学与 技术专业 Majors of Mechanics; Aeronautical and Astronautical Science and Technology
	12	062141	MECH712506	软物质力学 Mechanics of Soft Materials	2		
	13	062129	MECH612706	连续性理论 PRINCIPLES OF CONTINUA	2		
	14	062136	MECH612906	高等不可压缩流体力学 Advanced Incompressible Fluid Mechanics	2		
	15	063016	MECH640106	材料的力学行为和微尺度模拟 Mechanical behavior of materials and micro-scale simulation	2		
	16	063018	MECH740206	旋涡运动基础 Principle of Vortex Flows	2		

课程类型 Course Type	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes	
	17	063021	AASP611406	微米和纳米的流体力学 Fluid Mechanics at Micro and Nano Scales	2		
	18	092023	PHYS610309	高等量子力学 Advanced Quantum Mechanics	3	至少修 8 学分 A minimum of 8 credits required	物理专业 Physics major
	19	092030	PHYS610809	高等电动力学 Advanced Electrodynamics	2		
	20	092025	PHYS610409	高等热力学与统计物理 Advanced Thermodynamics and Statistical Physics	2		
	21	092043	PHYS611409	高等光学 Advanced Optics	3		
	22	092038	PHYS611209	信息光学 Information optics	2		
	23	092029	PHYS610709	计算物理 Computational physics	2		
	24	092036	PHYS611109	材料物理分析方法 Physical analysis of materials	2		
	25	092026	PHYS610509	高等固体物理 Advanced solid state physics	2		
	26	093006	PHYS640109	超强激光物理前沿 Frontiers of ultraintense laser physics	2		
	27	093007	PHYS640209	追寻能源 The energy quest	2		
	28	092007	CHEM610309	高等无机化学 Advanced Chemistry	2	至少修	化学专业 Chemistry

课程类型 Course Type	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes	
				Inorganic Chemistry		12 学分 A minimum of 12 credits required	major
	29	092004	CHEM610209	高等有机化学 (2) Higher organic chemistry (II)	2		
	30	092011	CHEM710409	量子化学原理 Principles of Quantum Chemistry	2		
	31	092008	CHEM610409	高等分析化学 Advanced Analytical Chemistry	2		
	32	092091	CHEM610609	配位化学 Coordination Chemistry	2		
	33	092133	CHEM610809	现代无机合成化学 Modern inorganic synthetic chemistry	2		
	34	092134	CHEM610909	现代有机合成化学 Modern Organic Synthetic Chemistry	2		
	35	092132	CHEM610709	高分子合成化学 Polymer synthetic chemistry	2		
	36	092135	CHEM710809	分离方法基础与技术 The Basis and Technology of Separation Method	2		
	37	092002	CHEM610109	界面化学 Interface Chemistry	2		
	38	092014	CHEM610509	高分子结构与性能 Structure and Properties of Polymers	2		
选修课	1	092074	MATH61090	微分拓扑	2	至少修	数学专业

课程类型 Course Type	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes	
Elective Course			7	Differential topology		4 学分 A minimum of 4 credits required	Mathematics major
	2	072136	MATH612107	现代数论 Topics in Modern Number Theory	2		
	3	072139	MATH610707	动力系统及应用 Dynamical Systems	2		
	4	072137	MATH611307	偏微分方程的现代理论 Modern Theory of Nonlinear Partial Differential Equations	2		
	5	092054	MATH610507	凸分析与优化理论 Convex Analysis and Optimization Theory	2		
	6	072143	MATH612207	科学计算的数学基础 Foundation of Mathematics for Scientific Computing	2		
	7	072144	MATH612307	信息科学的数学基础 Mathematical foundation of Information Sciences	2		
	8	072141	MATH710707	广义函数与 Sobolev 空间 Introduction to Sobolev Spaces and Partial Differential Equations	2		
	9		/	在数理力学类研究生课程目录中选修 Choose from the catalog of graduate	/		

课程类型 Course Type	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes	
				courses in Mathematics, Physics and Mechanics		required	
	10	072140	STAT610907	统计计算 Computational Statistics	2	至少修 4 学分 A minimum of 4 credits required	统计学专业 Statistics major
	11	072145	STAT611107	统计推断 Statistical Inference	2		
	12	092070	MATH610807	机器学习 Machine Learning	2		
	13	072132	STAT611207	大数据分析基础 Foundations of Big Data Analysis	2		
	14	072127	MATH811107	近代优化方法 Modern Optimization Method	2		
	15	072117	STAT810207	近代回归分析 Modern Regression Analysis	2		
	16	072118	STAT810307	现代信息论 Modern Information Theory	2		
	17		/	在数理力学类研究生课程目录中选修 Choose from the catalog of graduate courses in Mathematics, Physics and Mechanics	/		
	19		/	在数理力学类研究生课程目录中选修 Choose from the catalog of graduate courses in Mathematics, Physics and	/	至少修 12 学分 A minimum of 12 credits required	力学、航空宇航科学与技术专业 Majors of Mechanics, Aeronautical and

课程类型 Course Type	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes	
				Mechanics			Astronautical Science and Technology
	20		/	在数理力学类研究生课程目录中选修 Choose from the catalog of graduate courses in Mathematics, Physics and Mechanics	/	至少修 12 学分 A minimum of 12 credits required	物理学专业 Physics Major
	21	092001	CHEM810109	聚合物化学物理前沿 Frontier of Polymer Chemistry and Physics	2	至少修 8 学分 A minimum of 8 credits required	化学专业 Chemistry Major
	22	092013	CHEM710509	功能高分子化学 Functional Polymer Chemistry	2		
	23	092136	CHEM710909	现代生物材料 Modern biomaterials	2		
	24	092003	CHEM710109	生物有机化学 Bioorganic Chemistry	2		
	25	092130	CHEM710609	高等物理化学 Higher Physical Chemistry	2		
	26	092005	CHEM710209	计算化学与分子设计导论 Introduction to Computational Chemistry and Molecular Design	2		
	27	093012	CHEM611109	金属参与的现代有机合成 Metal Participation in Modern Organic Synthesis	2		

课程类型 Course Type	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
必修环节 Compulsory Activities	1	001997	BXHJ600399	学术活动(讲座)(硕) (Lectures) (Masters)	1	必修 4 学分 4 credits required
	2	001983	BXHJ600799	中期考核 Mid-term Assessment	3	

六、培养环节 (Compulsory Activities)

1. 学术活动 (讲座) (Lectures)

国际硕士研究生学术活动 (讲座) 分为必听讲座和选听讲座。必听讲座包括“科学道德与学风建设”1 次、“职业生涯发展与规划导论”1 次；选听讲座包括与学科紧密相关的“学科前沿系列专题讲座” (由各二级学科组织若干教授对本学科前沿知识进行讲座，每个系列由 5 个以上讲座组成) 一个系列和在全校范围内选听“学术讲座”1 次，完成全部 8 个讲座后记 1 学分。

Masters students are required to attend 8 lectures, including 2 compulsories (One on Scientific Morality and Construction of Study Style, and one on Introduction to Career Development and Planning), 5 discipline-specific frontiers lectures in a series (organized by respective schools), and 1 elective within the university. Students will obtain 1 credit with full attendance to 8 lectures.

2. 开题报告 (Dissertation Proposal)

硕士生应在第三学期内完成学位论文开题报告。硕士生查阅一定的国内外文献资料基础上，填写《硕士研究生学位论文选题报告》。《硕士研究生学位论文选题报告》完成以后，应组织公开的学位论文选题报告会。选题报告会的评审小组一般由 3-5 名专家组成。评审专家在选题报告会后就选题的意义、文献综述、研究内容、可能遇到的问题、是否通过选题等写出结论性的审查意见，并将结果和相关材料留学院备案。

Masters students are required to complete the dissertation proposal during the third semester. On the basis of reading domestic and foreign literature, the students shall fill up the *Opening Report on Dissertation Topic for Master's Degree Candidate*. After the completion of the afore-mentioned report, a conference will be organized. The evaluation group of the topic selection report is generally composed of 3-5 experts. After the conference, the evaluation experts are responsible for writing a review on the significance of the topic, literature review, research content, possible problems, and whether the selected topic is acceptable. The results and related materials will be held in files by the respective school.

开题报告通过后才可参加中期考核。在学期间转专业、转导师以及在论文研究工作过程中，论文课题有重大变动的研究生，应依据现导师的意见，决定是否重新做开题报告。

Only after the opening report has passed the evaluation can the student apply for mid-term assessment. Masters' candidates who have changed their major or tutors in the middle of a semester, and those who have made great changes in their dissertation research during the research process should decide whether to submit a new Opening Report on Dissertation Topic based on the opinions of their current tutor.

3. 中期考核 (Mid-term Assessment)

研究生在通过开题报告后，在导师的指导下开展论文工作，中期考核是对研究生入学后的学习与科研状况的全面检查，着重考核研究生业务表现与论文工作进展情况。中期考核包括：课业成绩、选题报告、课题进展和综合能力四个方面。硕士生第四学期末完成中期考核。

The mid-term assessment is a comprehensive assessment of the student's study performance and dissertation research progress. The mid-term assessment includes four aspects: performance of course work, opening report on dissertation topic, progress of the dissertation research and comprehensive abilities. Mid-term assessment must be finished before the end of the fourth semester.

中期考核由院系组织，考核小组由 5-7 名本学科或相关学科教师组成。研究生在参加中期考核前，需向学院提交由导师签字的课程成绩、课题研究进展报告等书面材料。考核小组依据研究生的学习成绩、论文选题报告和研究工作进展情况，对研究生的综合能力、论文工作进展以及工作态度、精力投入等进行全方位考查。考核通过后可继续攻读学位；不通过者，可参加下一次的考核，再次考核不通过者，按学校政策实行末位分流。

Mid-term assessment is organized by the respective school and department, and the assessment task group is composed of 5-7 teachers in their own discipline or related disciplines. Before taking part in the mid-term assessment, students should submit to the school written materials such as course grades signed by their tutor, opening report on dissertation topic, report on research progress and others. Based on those materials, the assessment task group will make an all-round evaluation of the student's comprehensive abilities. Those who pass the assessment can continue their research; those who fail have to take another mid-term assessment, and those who fail to pass the assessment again shall be made leave the program.

4. 预答辩 (Pre-oral Defense Reporting)

研究生完成学位论文后须在系所范围内组织预答辩，报告自己的研究成果。评审专家将严格审查论文选题意义，学位论文是否有独立见解，学位论文的工作量，推理的严格性。对预答辩中提出的问题，研究生要进行修改与补充，审批通过后方可进入论文评阅、答辩。对问题较多的学位论文要经过研究生修改后重新组织预答辩。

After completing their dissertation, students must take part in the pre-oral defense reporting organized by the respective department and report their research results. The evaluation experts will strictly examine the significance of topic, whether independent opinions are demonstrated in the dissertation, the workload of the dissertation, and the preciseness of reasoning. Students should revise their dissertation according to the questions raised in the pre-defense report meeting. After the students pass the evaluation, the dissertation will be reviewed and the candidate shall present their research orally for defence. For dissertation with more questions, students should revise it and re-take the pre-defense report meeting and the following procedural steps.

5. 学位论文 (Dissertation)

硕士研究生用于学位论文工作的时间不得少于 1 年，选题应在学术上有一定意义，或在科学技术上有一定价值。鼓励硕士生自选课题，但须征得导师认可。

The time on the dissertation should be no less than one year, and the dissertation topic they select should be of academic significance or of scientific and technological value. Students are encouraged to choose their own dissertation topic, but must be approved by their tutor.

论文应在导师指导下，由研究生独立完成。论文应有一定的新见解，应能反映出研究生已掌握了坚实的基础理论和系统的专业知识，能较为独立的开展科学研究工作。学位论文的答辩和学位授予，按照《西安交通大学学位授予工作暂行办法》以及相关学院学位授予规定执行。

Dissertation research should be completed independently by students themselves under the guidance of their tutor. The dissertation shall demonstrate some new insights, which reflect their mastery of solid basic theory and systematic professional knowledge, and they are relatively able to carry out scientific research work independently. The defending of dissertations and the awarding of the degree shall be carried out in accordance with the Xi'an Jiaotong University Tentative Regulations on Degree Granting and the relevant regulations for degree granting of the respective school.

七、培养环节时间节点(Timeline and milestones)

	课程学习 Course Work	开题报告 Dissertation proposal	中期考核 Mid-term Assessment	预答辩 Pre-oral defence Reporting	论文答辩 Thesis/Dissertation Defense
硕士 (Masters programs)	第 1-3 学期 From 1 st -3 rd semesters	第 3 学期 3 rd semester	第 3 学期末(2 年毕业) End of the 3 rd semester (2-year program) 第 4 学期末(3 年毕业) End of the 4 th semester (3-year program)	正式答辩前一周 A week before the final oral defense	第 4 学期(2 年毕业) 4 th semester (2-year program) 第 6 学期(3 年毕业) 6 th semester (3-year program)

★ 博士研究生培养方案 (Doctoral Programs)

一、培养目标 (Program objectives)

本培养方案注重培养德、智、体全面发展，综合素质高的专业人才。具体要求如下：

This training program focuses on the cultivation of all-round development of morality, intelligence and physique, and high-quality professionals. Specific requirements for candidates are as follows:

1. 遵纪守法，具有良好的思想品德、实事求是及科学严谨的治学态度和优秀的学术道德。

Comply with the regulations disciplines and laws, attain have good ideological quality and moral character, develop realistic and scientific and rigorous academic attitude, and follow excellent academic ethics.

2. 在所学专业及其交叉领域掌握坚实宽广的基础理论、科学研究方法和系统深入的专业知识，具有较强的独立从事科学研究和教学工作的能力。

Master solidly and broadly basic theories, scientific research methods and systematic in-depth specialized knowledge in the discipline undertaken and its cross-disciplines, and have strong ability to perform scientific research and teaching work independently.

3. 在所学专业或其交叉领域能够做出创造性成果，能从事教学、科研或实际应用方面的工作。

Be able to produce creative results in their discipline or its cross-disciplines, and to engage in teaching, scientific research or practical applications.

二、研究方向 (Research fields)

数学 Mathematics:

非线性泛函分析及应用 Nonlinear Functional Analysis and Application;

偏微分方程理论及应用 Theory and Application of Partial Differential Equations;

数论及其应用 Number Theory and Its Application;

几何分析 Geometric Analysis;

非线性微分方程 Nonlinear Differential Equation;

格上拓扑与非经典数理逻辑 Topological and Non-classical Mathematical Logic;

孤立子与非线性可积系统 Solitons and Nonlinear Integrable Systems;

偏微分方程的新型时空并行方法 A New Spatiotemporal Parallel Method for Partial Differential Equations;

大规模科学计算 Large-scale Scientific Computing;

连续介质力学数学方法与计算 Mathematical Method and Calculation of Continuum Mechanics;

计算物理与计算流体 Computational Physics and Computational Fluids;

流体的高性能数值算法与应用 High Performance Numerical Algorithms and Application for Fluids;

近代优化理论、算法及应用 Theory, Algorithm and Application of Modern Optimization Method;

金融风险度量与金融最优化 Financial Risk Measurement and Financial

Optimization;

图论与组合最优化 Graph Theory and Combination Optimization;

有限元分析及其应用 Finite Element Analysis and Its Application;

矩阵理论与数值代数 Matrix Theory and Numerical Algebra;

生物数学 Biological Mathematics;

随机动力学理论及应用建模 Stochastic dynamics theory and application modeling;

计算智能与信息技术的数学基础 Mathematical Basis of Computational Intelligence and Information Technology;

机器感知与信息处理的数学基础 Mathematical Basis of Machine Perception and Information Processing;

智能控制理论与应用 Theory and Application of Intelligent Control;

大型复杂系统瞬态计算理论 Transient Computing Theory for Large and Complex Systems;

智能计算与数据挖掘 Intelligent Computing and Data Mining;

机器学习 Machine Learning;

图像处理与分析中的数学方法 Mathematical Methods in Image Processing and Analysis;

大数据与分布式计算 Big Data and Distributed Computing;

无线通信系统的数学理论与分析 Mathematical Theory and Analysis of Wireless Communication

System。

统计学 Statistics:

概率论与随机过程 Probability Theory and Stochastic Processes;

非参数统计 Nonparametric Statistics;

时间序列分析 Time series analysis;

数据科学基础与大数据分析 Data Science Essentials and Big Data Analysis;

空间数据分析 Spatial Data Analysis;

生物统计学 Biostatistics;

贝叶斯统计 Bayesian Statistics;

高维统计推断 High-dimensional Statistical Inference;

统计机器学习 Statistical Machine Learning;

计算统计学 Computational statistics;

金融统计与量化交易 Financial Statistics and Quantitative Transactions。

物理学 Physics:

1. 理论物理 Theoretical physics

量子信息 Quantum information;

量子场论 Quantum field theory;

低维系统的结构与物理性质 Structure and physical properties of low dimensional systems;

强关联系统 Strong correlation system;

数学物理 Mathematical physics。

2. 光学 Optics

量子光学 Quantum optics;

非线性光学 Nonlinear optics;

空间光学 Space optics;

成像光谱技术 Imaging spectroscopy technology;

激光及其应用 Laser and its application;

固体光谱学 Solid state spectroscopy;

光学功能材料 Optical functional materials;

光学测量 Optical measurement;

光纤传感及通信技术 Optical fiber sensing and communication technology;

光电子学及器件设计 Photoelectronics and device design。

3. 凝聚态物理 Condensed matter physics

固体的光学性质 Optical properties of solids;

纳米功能材料 Functional nanomaterials;

纳米管结构与物理性质 Structure and physical properties of nanotubes;

磁学与磁性材料 Magnetism and magnetic materials;

电子材料与器件 Electronic materials and devices;

激光与物质相互作用 Interaction between laser and matter;

4. 原子与分子物理 Atomic and molecular physics

原子与分子的高激发态能级结构 Energy level structures of highly excited states of atoms and molecules;

新型光谱转换和存储材料 New spectral conversion and storage materials;

日光与大气相互作用 Interaction between solar and atmosphere;

太阳能功能材料与应用技术 Solar energy functional materials and application technology;

纳米金属粒子的电子能级结构和光电性质 Electronic energy level structure and photoelectric properties of metal nanoparticles。

力学、航空宇航科学与技术专业

Mechanics; Aeronautical and Astronautical Science and Technology:

结构/材料破坏机理和强度理论 Structure/ materials failure mechanism and strength theory;

多场耦合理论与结构轻量化 Multi-field coupling theory and structural lightweight design;

结构完整性与装备安全理论与技术 Theory and technology in structural integrity and security;

动力学与控制现代理论 Modern theories in dynamics and control;

流体力学与流固耦合 Fluid mechanics and fluid-solid coupling theory;

飞行器设计 Aircraft design;

先进飞行器导航、制导与控制 Theories in advanced aircraft navigation, guidance, and control;

航空宇航推进理论与工程 Aerospace propulsion theory and engineering;

航空宇航制造工程 Aerospace manufacturing engineering。

三、学习年限 (Length of programs)

国际博士研究生学习年限一般为3-5年，经批准可适当延长，延长时间不超过1年。

The length of doctoral programs is 3 to 5 years. Prolongation (no more than one year) will have to be approved by the university authority.

四、培养方式 (Program overview)

1. 研究生培养实行导师负责制。可以根据培养工作的需要建立以导师为核心的指导小组，协助导师指导研究生。

The tutor-responsibility system is adopted in the education training of Masters graduate students. According to the needs of training work, a guidance group can be set up with a tutor as the core supervisor core to assist his/her work in guiding PhD students academically.

2. 指导教师应根据本培养方案和学生的个人情况，在学生入学前制定出培养计划，内容包括：研究方向、课程学习、文献阅读、选题报告、科学研究、学术交流、学位论文等方面的要求和进度计划。学生入学后两周内可以根据本人的具体情况对培养计划进行局部调整。

According to this training program and individual students' personal conditions, the supervisor tutor should formulate a training plan after the student is registered before students' enrollment. The contents of this plan include: research field, course-learning, literature reading, topic selection report, scientific research, academic exchange, dissertation and other requirements and research progress plans. Students can adjust their training plan according to their individual specific conditions within two weeks after

registration.

3. 研究生应通过课程学习加深理论基础, 扩大知识面。课程学习多采用启发式、研讨式的教学方式, 以自学为主, 培养其独立分析和解决问题的能力。研究生应按照培养计划在第一至三学期内完成所有课程学习。

PhD students will deepen their theoretical foundation and expand their knowledge through course-learning. The course-learning mostly adopts heuristic and seminar teaching methods, and with student self-study as basis, to cultivate students' ability to independently analyze and solve problems. PhD students should complete all courses in the first three semesters according to the training plan.

4. 博士生自第二学年起至第三学年末完成中期考核。考核通过者, 继续攻读学位; 不通过者, 可参加下一次的中期考核, 再次考核不通过者, 予以分流处理。

From the second academic year to the end of the third academic year, PhD. students should complete their mid-term assessment. Those who pass the assessment will continue their program; those who fail have to re-take the next mid-term assessment, and those who fail the second assessment shall be made leave the program.

五、课程学习(Course work)

学术学位博士生课程学习应至少取得 12 学分, 包括: 公共课(汉语(II) 2 学分、中国概况(II) 2 学分) 4 学分、专业学位课至少 4 学分, 选修课学分根据专业学位课、总学分要求设置。

The academic doctoral programs (except in Philosophy, Politics, and Economics) consist of at least 12 credits for course work. Required courses include *Comprehensive Chinese II* (2 credits), *The Outline of China II* (2 credits), degree courses (no less than 4 credits), and elective courses (set by degree requirements).

必修环节包括: 学术活动(讲座) 2 学分、开题报告 2 学分、中期考核 6 学分。

Other compulsory activities include academic lectures (doctoral) (2 credits), dissertation proposal (2 credits), and mid-term assessment (6 credits).

国际博士研究生课程设置和学分要求

(Curriculum Design and Credit Requirements of Doctoral Programs)

课程类型 Course Type	序号 NO.	课程编号 Course number	统一编码 Course Code	课程名称 Course Name	学分 (Credit)	备注 remarks
公共学位课 Public Course	1	272003	ENGL602312	中国概况(II) The Outline of China II	2	必修 4 学分 4 credits required
	2	272004	LITE610227	综合汉语(II) Comprehensive Chinese II	2	
专业学位课				数学 Mathematics		

课程类型 Course Type	序号 NO.	课程编号 Course number	统一编码 Course Code	课程名称 Course Name	学分 (Credit)	备注 remarks
Degree Course	1	092076	MATH811007	非线性泛函分析 Nonlinear Functional Analysis	2	至少修 6 学分 A minimum of 6 credits required
	2	072129	MATH713107	计算机数学 Computer Mathematics	2	
	3	092094	MATH611607	偏微分方程正则性理论 Regularity Theory of Partial Differential Equations	2	
	4	072127	MATH811107	近代优化方法 Modern Optimization Method	2	
	5	092061	MATH710807	椭圆与抛物方程 Elliptic and Parabolic Partial Differential Equations	2	
统计学 Statistics						
	1	072122	STAT810707	随机微分方程 Stochastic Differential Equations	2	至少修 6 学分 A minimum of 6 credits required
	2	072117	STAT810207	近代回归分析 Modern Regression Analysis	2	
	3	072121	STAT810607	集成学习 Ensemble Learning	2	
	4	072127	MATH811107	近代优化方法 Modern Optimization Method	2	

课程类型 Course Type	序号 NO.	课程编号 Course number	统一编码 Course Code	课程名称 Course Name	学分 (Credit)	备注 remarks
	5	072129	MATH713107	计算机数学 Computer Mathematics	2	
力学-航空宇航科学与技术 Mechanics; Aeronautical and Astronautical Science and Technology						
	1	091003	MATH600207	计算方法 B Computational Method B	2	至少修 4 学分 A minimum of 4 credits required
	3	062123	AASP711106	旋转机械动力学 Dynamics of Rotating Machines	2	
	4	062125	AASP711206	飞行动力学 Flight Dynamics	2	
	5	062127	INSM610706	机械测量与无损检测 Electromagnetic Nondestructive Testing and Evaluation	2	
	6	062128	AASP111106	超高声速空气动力学 Hypersonic Aerodynamics	2	
	7	062141	MECH712506	软物质力学 Mechanics of Soft Materials	2	
	9	062129	MECH612706	连续性理论 PRINCIPLES OF CONTINUA	2	
	10	062136	MECH612906	高等不可压缩流体力学 Advanced Incompressible Fluid Mechanics	2	

课程类型 Course Type	序号 NO.	课程编号 Course number	统一编码 Course Code	课程名称 Course Name	学分 (Credit)	备注 remarks
	11	063016	MECH640106	材料的力学行为和微尺度模拟 Mechanical behavior of materials and micro-scale simulation	2	
	12	063018	MECH740206	旋涡运动基础 Principles of Vortex Flows	2	
	13	063021	AASP611406	微米和纳米的流体力学 Fluid Mechanics Micro and Nano Scales	2	
物理学 Physics						
	1	092044	PHYS711409	凝聚态物理导论 Introduction to Condensed Matter Physics	2	至少修 4 学分 A minimum of 4 credits required
	2	092019	PHYS610209	量子光学 Quantum Optics	2	
	3	092039	PHYS611309	成像光谱与遥感物理 Imaging Spectrum and Remote Sensing Physics	2	
	4	092034	PHYS610909	固体光谱学 Solid State Spectroscopy	2	
	5	092045	PHYS611509	量子信息导论 Introduction to Quantum Information	2	
	6	092027	PHYS610609	软凝聚态物理学选讲 Selected lectures on soft condensed matter physics	2	

课程类型 Course Type	序号 NO.	课程编号 Course number	统一编码 Course Code	课程名称 Course Name	学分 (Credit)	备注 remarks
	7	092035	PHYS611009	纳米材料的光学性质 Optical Properties of Nano-materials	2	
	8	092026	PHYS610509	高等固体物理 Advanced Solid Physics	2	
	9	093007	PHYS640209	超强激光物理前沿 Frontiers of ultraintenselaserphysics	2	
	10	093006	PHYS640109	追寻能源 The Energy Quest	2	
选修课 Elective Course	1	/	/	在数理力学类研究生课程目录中选修 Choose from the catalog of graduate courses in Mathematics, Physics and Mechanics	/	至少修 4 学分 A minimum of 4 credits required
必修环节 Compulsory Activities	1	001999	BXHJ800399	学术活动(讲座) (博) Lectures (Doctoral)	2	必修 10 学分 10 credits required)
	2	001986	BXHJ800499	开题报告 Dissertation Proposal	2	
	3	001994	BXHJ800199	中期考核 Mid-term Assessment	6	

六、培养环节 (Compulsory Activities)

1. 学术活动 (讲座) (Lectures)

国际博士研究生学术活动 (讲座) 分为必听讲座和选听讲座。必听讲座为“科学道德与学风建设”; 选听讲座包括与学科紧密相关的“学科前沿系列专题讲座”(由各二级学科组织若干教授对本学科前沿知识进行讲座, 每个系列由 5 个以上讲座组成) 一个系列和在全校范围内选听“学术讲座”1 次, 自己公开讲座 1 次, 完成后记 2 学分。新港报告纳入国际留学生选修课, 学生听够 20

场讲座后可记 2 学分。

Doctoral students are required to attend 7 lectures, including a compulsory lecture (a lecture on Scientific Morality and Construction of Study Style), 5 lectures in a series related to the frontiers of the disciplines related to the discipline undertaken (organized by respective schools), and 1 elective within the university. In addition, they are also required to give a lecture. Students will obtain 2 credits by completing the whole series of activities. Innovation Harbour Lectures are included in elective courses for international students, 2 credits will be granted after attending 20 Lectures.

2. 开题报告 (Dissertation Proposal)

博士生应在第三学期内完成开题报告。学位论文开题报告应不少于 1 万字, 内容包括论文题目, 选题意义, 国内外研究现状, 拟定研究计划, 各个阶段的主要内容、目标、完成期限, 工作难点及特色, 预期成果以及可能产生的创新点等 (参考文献不少于 100 篇, 其中外文文献 30 篇以上)。选题报告会以学术活动的形式在学院内公开进行, 并在学院官网公示, 由系所组织考核小组进行评审, 并将结果和相关材料留学院备案。

Doctoral students should complete the dissertation proposal during the third semester. The opening report should be no less than 10,000 words, including the title of the dissertation, the significance of the topic, the status quo of the current research home and abroad, the research plans, the main contents of each stage, objectives, completion deadlines, difficulties and characteristics of the work at each stage, as well as expected results and possible innovations (no less than 100 references, of which more than 30 are in foreign languages). The reporting will be conducted in the form of an academic activity in the respective school and will be announced on the official webpage of the respective school. The topic will be evaluated by the evaluation task group organized by the corresponding Departments, and the results and related materials will be saved as files in the record by the school.

开题报告通过后才可参加中期考核。在学期间转专业、转导师以及在论文研究工作过程中, 论文课题有重大变动的研究生, 应依据现导师的意见, 决定是否重新做开题报告。

Only after the opening report passes can the student apply for the mid-term assessment. Students who changed their major or tutor in the middle of a semester, and those who made great changes in their dissertation research during the research process should decide whether to submit a new opening report in light of the opinions of their current tutor.

3. 中期考核 (Mid-term Assessment)

研究生在通过开题报告后, 在导师的指导下开展论文工作, 中期考核是对研究生入学后的学习与科研状况的全面检查, 着重考核研究生业务表现与论文工作进展情况。

Mid-term assessment is a comprehensive evaluation of the students' study and progress of research, particularly their performance of course work and the progress of the dissertation research.

中期考核包括: 课业成绩、选题报告、课题进展和综合能力四个方面。博士生自第二学年起至第三学年末完成中期考核。

The mid-term assessment includes four aspects: course performance, topic selection reporting, progress of the dissertation research and comprehensive abilities. PhD students must complete their mid-term assessment from the second academic year to the end of the third academic year.

中期考核由院系组织, 考核小组由 5-7 名本学科或相关学科教师组成。研究生在参加中期考核前, 需向学院提交由导师签字的课程成绩、课题研究进展报告等书面材料。考核小组依据研究

生的学习成绩、论文选题报告和研究工作进展情况，对研究生的综合能力、论文工作进展以及工作态度、精力投入等进行全方位考查。考核通过后可继续攻读学位；不通过者，可参加下一次的中期考核，再次考核不通过者，按学校政策实行末位分流。

Mid-term assessment is organized by the respective school and department, and the assessment task group is composed of 5-7 teachers in their own discipline or related disciplines. Before taking part in the mid-term assessment, students should submit to the school written materials such as course grades signed by their tutor, opening report on dissertation topic, report on research progress and others. Based on those materials, the assessment task group will make an all-round evaluation of the student's comprehensive abilities. Those who pass the assessment can continue their research; those who fail have to take another mid-term assessment, and those who fail to pass the assessment again shall be made terminate the program.

4. 预答辩 (pre-oral defense Reporting)

博士研究生在学位论文送审之前，应在院内公开进行预答辩，并在学院官网公示，由系所组织考核小组进行评审。

Before submitting the dissertation for review, the doctoral candidates should make a public pre-oral defense reporting in the school and announce it on the official webpage of the school. The evaluation group organized by the Department will evaluate the performance of the reporting.

在预答辩中，由研究生报告自己的研究成果，考核小组将严格审查论文选题的意义、学位论文是否有独立见解、学位论文的工作量、推理的严格性等。对预答辩中提出的问题，研究生应认真修改与补充，对问题较多的学位论文，研究生应修改后重新进行预答辩。预答辩通过后，填写“博士学位论文预答辩情况”表报送学院审核，学院审批后进入论文评阅和学位论文答辩环节。对问题较多的学位论文，要经过研究生修改后重新组织预答辩。

In the pre-oral defense reporting, the PhD candidates shall report their research results, and the evaluation group will strictly evaluate the significance of the topic, whether independent opinions are demonstrated in the dissertation, the workload of the dissertation, and the preciseness of reasoning. The students should carefully revise the dissertation, address the questions raised in the pre-oral defense reporting meeting. For the dissertation with more problems, the candidate should revise it and re-take the pre-oral defense reporting. After the pre-oral defense reporting passes the evaluation, the student will fill up the form of "Description of the Pre-oral defense Reporting of Doctoral Dissertation" and submit it to the school for approval. After the school's approval is granted, the dissertation will be sent out for reviewing and the candidate shall take part in the oral dissertation defense. For dissertations with more problems, a second pre-oral defense reporting should be organized after the student revises it.

5. 学位论文 (Dissertation)

博士学位论文工作是博士生在校期间的最主要工作，是研究生培养质量和学术水平的集中反映。博士生在校期间应把主要精力投入到与博士学位论文有关的科学研究和学术论文的撰写上。

Doctoral dissertation is the main work of doctoral students in school, and it is a concentrated reflection of the quality of graduate training and academic level. Doctoral students should devote their main energy to scientific research and the writing of academic papers related to their doctoral dissertation.

博士学位论文应在导师的指导下，由研究生本人独立完成。论文选题应是从本学科的某一研究方向提出的，对科学技术的发展或国民经济具有较大理论意义以及具有一定学术水平和使用价

值的课题。学位论文应有较强的系统性和创造性成果（至少呈现三个创新点），应能反映出研究生已掌握了本学科坚实而宽广的基础理论和系统深入的专门知识，并具有独立从事科学研究工作的能力。为保证论文质量，论文工作必须有一定工作量，用于论文工作的实际时间应不少于两年。

The doctoral dissertation should be completed independently by the PhD candidate him/herself under the guidance of the tutor. The topic of the dissertation should be drawn from a certain research area of his/her discipline, which is of great theoretical significance to the development of science and technology or national economy, as well as of certain academic and application value. The dissertation should have sufficient systematic and creative achievements (at least three innovative points). It should reflect that the PhD candidate has grasped solidly and broadly the basic theories and systematic in-depth expertise of the discipline, and has the ability to conduct scientific research independently. In order to ensure the quality of the dissertation, the PhD candidate must reflect the dissertation research required efforts that were of adequacy, and the actual time spent on the dissertation should be no less than two years.

博士生达到学校及学院学位申请条件后，可进行论文送审。在依照学位论文评审专家的意见对论文进行修改，并满足学校和学院的答辩条件后，方可进行学位论文答辩。答辩决议报学院、学校学位评定委员会评议，在满足学院相关规定与要求的前提下，按照《西安交通大学学位授予工作暂行办法》最终决定是否授予其博士学位。

Doctoral students can submit their dissertation for reviewing after they have met the requirements for applying for academic degree of the school and the university. The dissertation can be defended only after it is revised according to the opinions of the dissertation evaluation experts and meets the conditions for dissertation defense of the school and the university. The resolution on dissertation defense shall be submitted to the Academic Degree Assessment Committee of the school and university for evaluation. On the premise of meeting the relevant regulations and requirements of the school and the university, the final decision shall be made as to whether to award the doctor's degree in accordance with Xi'an Jiaotong University Tentative Regulations for Degree Granting.

七、培养环节时间节点(Timeline and milestones)

	课程学习 Course Work	开题报告 Dissertation Proposal	中期考核 Mid-term Assessment	预答辩 Pre-oral defense Reporting	论文答辩 Thesis/Dissertat ion Defense
博士 Doctoral programs	第 1-3 学期 From 1 st -3 rd semesters	第 3 学期 3 rd semester	第 4 学期 4 rd semester	第 6-12 学期 From 6 st -12 rd semesters	第 7-12 学期 From 7 st -12 rd semesters

**能源与动力工程学院/化学工程与技术
学院/人居环境与建筑工程学院**
*School of Energy and Power Engineering/School of
Chemical Engineering and Technology/School of
Human Settlements and Civil Engineering*

能源与动力工程学院/化学工程与技术学院/ 人居环境与建筑工程学院

School of Energy and Power Engineering/School of Chemical Engineering and Technology/School of Human Settlements and Civil Engineering

能源动力类国际研究生培养方案

International Graduate Programs in Power and Energy

一、培养目标(Objectives)

博士培养目标：培养德、智、体全面发展，具有高水平综合素质的能源动力领域的高级专门人才。掌握坚实宽广的基础理论和系统深入的专门知识；具有独立从事科学研究和教学工作的能力；在领域内能做出创造性的成果；具有实事求是、科学严谨的工作作风及协作、奉献、创新的精神，勇于解决科学技术问题。

Doctoral Programs: The programs aim at cultivating all-around qualities of the doctoral candidates, helping them to achieve both academic and moral excellence. Through the training, doctoral candidates have a firm grasp of basic theories and systematic specialized knowledge, and specialized knowledge, be able to conduct independent scientific research and teaching activities, gain innovative achievements in Nuclear Science and Technology, demonstrate scientific attitude, and strive to resolve sci-tech difficulties in a rigorous and pragmatic way.

硕士培养目标：培养德、智、体全面发展的本领域高级专门人才。在本领域内，掌握坚实的基础理论和系统的专门知识，熟悉所从事的研究方向的科学技术发展动向；具有从事科学研究工作或独立担负专门技术工作的能力。

Masters Programs: The programs aim at cultivating the all-around qualities of the Masters candidates, helping them to achieve both academic and moral excellence. For Masters graduate students, apart from mastering solid basic theories and systematic and specialized discipline knowledge, they should also be familiar with the science and technology developing trends of the research areas they engage in, and should be able to carry out scientific research independently.

二、研究方向 (Areas of Research)

1. 热能工程 Thermal Energy Engineering
2. 动力机械及工程 Power Machinery and Engineering
3. 流体机械及工程 Fluid Machinery and Engineering
4. 工程热物理 Engineering Thermophysics
5. 制冷及低温工程 Refrigeration and Cryogenics Engineering

6. 后续能源与能源新技术 Sustainable Energy and New Energy Technology
7. 能源环境工程 Energy and Environmental Engineering
8. 航空动力与空间环境工程 Aerospace Power and Space Environmental Engineering
9. 核反应堆物理分析 Nuclear Reactor Physics Analysis
10. 核反应堆热工流体力学 Thermal-fluid Dynamics of Nuclear Reactor
11. 核反应堆安全分析 Nuclear Reactor Safety Analysis
12. 核反应堆动力学与控制 Nuclear Reactor Dynamics & Control
13. 核动力设备故障检测与可靠性分析 Fault Detection and Reliable Analysis of Nuclear Power Equipment
14. 辐射物理与技术 Radiation Physics and Technology
15. 核测井技术 Nuclear Logging Technology
16. 瞬态辐射物理过程诊断 Transient Radiation Physical Process Diagnosis
17. 材料辐射效应 Radiation Effects in Materials and Devices
18. 加速器质谱应用 Application of Accelerator Mass Spectrometry
19. 化学工程与技术 Chemical Engineering and Technology
20. 化工过程机械 Chemical Engineering Machinery
21. 地球与人居环境科学及工程 Earth and Built Environment Science and Engineering

三、学校年限 (Length of Programs)

博士研究生为 3-6 年。

The length of programs is s three to six years for doctoral degrees.

硕士研究生为 2-3 年。

The length of studies is two to three years for Masters degrees

四、培养方式 (Program Overview)

在培养方式上采取以指导教师为主的博士生指导小组集体培养的方式，也可以和其他高校、研究所、或工厂企业联合培养，吸收具有高级职称的人员参加指导。培养过程中，导师应根据本方案的要求并结合博士生个人的特点，制定培养计划，指导博士生的论文选题、文献查阅、调研、科研工作、论文的撰写和答辩。加强学生的自学能力、动手能力、表达能力和写作能力的训练和培养。

The major training mode for doctoral students is tutor-led group supervising system. Joint training with other universities, institutes, factories and enterprises can also be adopted to allow senior experts to participate in the guidance. During the process, based on the requirements of the program and students' personalities, supervisors should make individualized plans and direct doctoral candidates in dissertation writing, literature searching, survey, scientific research and dissertation defense. Supervisors should also help students improve their abilities in independent-study, practical hands-on ability, abilities to express and write.

五、课程及必修环节(Course Work and Compulsory Activities)

博士生在校期间至少修满 22 学分。课程学习总学分为 12 学分，其中学位课不少于 8 学分；选修课学分为 4 学分，其中化学工程学院的博士生必须选修 2 学分化工学院课程，人居学院的博士生必须选修 2 学分人居学院课程，其余学分在全校全英文课程范围内任选。必修环节 10 学分，包括学术活动（讲座）2 学分、开题报告 2 学分、中期考核 6 学分。新港报告纳入国际留学生选修课，学生听够 20 场讲座后可记 2 学分。

PhD candidates have to get no less than 22 credits during school studies, including 12 credits in total for course studies, among which at least 6 credits for degree courses are required. Elective courses can be selected from the graduate course catalog in university. The total credits for Compulsory Activities are 10, including 2 credits for seminars, 2 credits for opening report on dissertation topic and 6 credits for mid-term assessment. Innovation Harbour Lectures are included in elective courses for international students, 2 credits will be granted after attending 20 Lectures.

硕士生在校期间至少修满 28 学分。课程学习总学分为 24 学分，其中学位课不少于 12 学分；选修课学分为 12 学分，其中所在学院选修课必选 2 学分，其余学分在全校全英文课程范围内任选。必修环节 4 学分，包括学术活动（讲座）1 学分、中期考核 3 学分。新港报告纳入国际留学生选修课，学生听够 20 场讲座后可记 2 学分。

Masters students have to get no less than 28 credits during the school studies, including 24 credits in total for course studies, among which at least 12 credits for degree courses are required. Elective courses can be selected from the graduate course catalog in the university. The total credits for Compulsory Activities are 4, including 1 credit for attending lectures, and 3 credits for mid-term assessment. Innovation Harbour Lectures are included in elective courses for international students, 2 credits will be granted after attending 20 Lectures.

硕士研究生课程设置与要求

Curriculum Structure for Masters Programs in Power and Energy

课程分类 Course Module	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credits	学分要求 Credit Requirements	备注 Remarks
公共课 Compulsory Courses	1	272003	LITE610112	中国概况 (I) The Outline of China I	2.00	4	
	2	272004	LITE610227	综合汉语 (I) Comprehensive Chinese I	2.00		
学位课 Degree Courses	1	031002	ENPO700103	数值传热学 Numerical Heat Transfer	3.00	≥8	
课程分类 Course Module	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credits	学分要求 Credit Requirements	备注 Remarks

	2	071001	MATH600807	计算方法 (留学生) Computational Method (foreign students)	3.00		
	3	032072	ENPO611203	高等燃烧学 Advanced Combustion Theory	2.00		
	4	032159	ENPO751103	燃烧化学 Combustion Chemistry	2.00		
	5	032160	ENPO75123	现代燃烧科学与能源利用技术 Modern Combustion Science and Energy Utilization Technology	2.00		
	6	072010	EVNG610603	废水生物处理技术 Biological Treatment of Wastewater	2.00		
	7	033738	NUCL640103	核反应堆严重事故分析进展 Advance in Severe Accident Analysis of Nuclear Reactors	2.00		
	8	033751	NUCL640303	加速器真空技术概论 Introduction to Vacuum Technology in Accelerators	2.00		



课程分类 Course Module	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credits	学分要求 Credit Requirements	备注 Remarks
	9	033749	ENPO84023	制冷低温系统的设计与实现 Design and Implementation of Refrigeration and Cryogenic systems	3.00		
	10	032030	NUCL610903	核反应堆热工数值分析 Numerical Analysis of Thermal Hydraulic in Nuclear Reactor	2.00		
	11	223005	EVNG710822	非点源污染 Nonpoint Source pollution	2.00		人居学院学生必选 Required course for students of School of Human Settlements and Civil Engineering
	12	163004	CENG640316	化学反应工程选论 Selected Topics of Chemical Reaction Engineering	2.00		化工学院学生必选 Required course for students of School of Chemical Engineering and Technology

课程分类 Course Module	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credits	学分要求 Credit Requirements	备注 Remarks
选修课 Elective Courses	1			能动学院学生必从能动学院开设课程选2学分 Students in School of Energy and Power Engineering should select 2 credits course from that school		≥12	必修2学分 2 credits required
	2			化工学院学生必从化工学院开设课程选2学分 Students of School of Chemical Engineering and Technology should select 2 credits from the list of courses offered by the school			
	3			人居学院学生必从人居学院开设课程选2学分 Students of School of Human Settlements and Civil Engineering should select 2 credits from the list of courses offered by the school			

课程分类 Course Module	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credits	学分要求 Credit Requirements	备注 Remarks
	4			研究生院开出的全部课程 Students can select any course from the list of courses of the Graduate School			任选 10 学分, 10 credits from elective courses
必修环节 Compulsory Activities	1	001997	BXHJ600399	学术活动(讲座)(硕) Lectures (Master)	1.00	4	
	2	001983	BXHJ600799	中期考核 Mid - term Assessment	3.00		

博士研究生课程设置与要求

Curriculum Structure for Doctoral Programs in Power and Energy

课程分类 Course Module	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credits	学分要求 Credit Requirements	备注 Remarks
公共课 Compulsory Courses	1	272003	ENGL602312	中国概况(II) The Outline of China II	2.00	4	
	2	272004	LITE600127	综合汉语(II) Comprehensive Chinese II	2.00		
学位课 Degree Courses	1	031002	ENPO700103	数值传热学 Numerical Heat Transfer	3.00	≥4	
	2	071001	MATH600807	计算方法(留学生) Computational Method (foreign students)	3.00		
	3	032072	ENPO611203	高等燃烧学	2.00		

课程分类 Course Module	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credits	学分要求 Credit Requirements	备注 Remarks
				Advanced Combustion Theory			
	4	032159	ENPO751103	燃烧化学 Combustion Chemistry	2.00		
	5	032160	ENPO751203	现代燃烧科学与能源利用技术 Modern Combustion Science and Energy Utilization Technology	2.00		
	6	072010	EVNG610603	废水生物处理技术 Biological Treatment of Wastewater	2.00		
	7	033738	NUCL640103	核反应堆严重事故分析进展 Advance in Severe Accident Analysis of Nuclear Reactors	2.00		
	8	033751	NUCL640303	加速器真空技术概论 Introduction to Vacuum Technology in Accelerators	2.00		
	9		ENPO840203	制冷低温系统的设计与实现	3.00		

课程分类 Course Module	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credits	学分要求 Credit Requirements	备注 Remarks
		033749		Design and Implementation of Refrigeration and Cryogenic systems			
	10	032030	NUCL610903	核反应堆热工数值分析 Numerical thermal analysis of Nuclear Reactor	2.00		
	11	223005	EVNG710822	非点源污染 Nonpoint Source pollution	2.00		人居学院学生必选 Required course for students of School of Human Settlements and Civil Engineering
	12	163004	G64CEN0316	化学反应工程选论 Selected Topics of Chemical Reaction Engineering	2.00		化工学院学生必选 Required course for students of School of Chemical Engineering and Technology
选修课 Elective Courses	1			能动学院学生必从能动学院开设课程选 2		≥4	必修 2 学分 2 credits required

课程分类 Course Module	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credits	学分要求 Credit Requirements	备注 Remarks
				学分 Students of School of Energy and Power Engineering should select 2 credits from the list of the courses offered by the school			
	2			化工学院学生必从化工学院开设课程选 2 学分 Students of School of Chemical Engineering and Technology should select 2 credits from the list of courses offered by the school			
	3			人居学院学生必从人居学院开设课程选 2 学分 Students of School of Human Settlements and Civil Engineering			

课程分类 Course Module	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credits	学分要求 Credit Requirements	备注 Remarks
				should select 2 credits from the list of courses offered by the school			
	4			研究生院开出的全部课程 Students can select any course from the list of courses of the Graduate School			
必修环节 Compulsory Activities	1	001999	BXHJ800399	讲座 Lectures	2.00	10	
	2	001994	BXHJ800199	中期考核 Mid - term Assessment	6.00		
	3	001986	BXHJ800499	开题报告 Opening Report on Dissertation Topic	2.00		

六、学位论文(Thesis / Dissertation)

博士学位论文：在指导教师的指导下，通过阅读文献资料，调查实际情况，确定研究课题及课题范围，并结合教研室的科研任务，发挥导师和博士生的特长，以便做出创新性的成果。

Doctoral Dissertations: Doctoral dissertation should be completed under the guidance of the supervisor. The research topic and scope need to be identified through literature reading and investigation. Candidates should draw on the strong points of their supervisor and themselves to make innovative achievement in their research field.

博士生应在第二学期开始收集有关论文选题资料及一切准备工作，第二学期末初步确定论文题目，写出学位论文的选题报告，并在教研室会议上宣读，征求意见。应在第三学期初正式确定论文题目，拟定出学位论文工作计划，包括各阶段的主要内容、要求、完成期限等。博士生在科研工作过程中，大约一个学期左右，应在各系安排的会议上，作一次阶段性进展报告。

Doctoral students should collect materials for dissertation proposal at the beginning of the second semester, and identify the dissertation topic by the end of the second semester. The dissertation proposal report must be finished and reported at the conference of corresponding Teaching and Research Section for opinion. At the beginning of the third semester, final topic and paper work plan should be decided and worked out, including main contents in different periods, requirements and completion deadlines, etc. During the process of dissertation scientific research, doctoral candidates should present a Progress Report in a meeting organized by the respective department.

硕士学位论文：在指导教师的指导下，由研究生独立完成。论文应有一定的系统性和完整性，有新见解。学位论文时间一般不少于一年。论文选题应在导师的指导下，通过阅读文献、调查研究后确定。

Masters Theses: Masters Theses should be accomplished under the guidance of their supervisor. The thesis, which should be completed within one a year, must be systematic, complete with new insightful conclusions. The topic should be selected with the help of their supervisor and through literature reading and investigation.

学位论文力求文字简明，分析严谨，理论指导和运算正确无误，在答辩阐述论文时，应有实事求是的科学态度。硕士学位论文评阅人为两名。两名评阅人可均需具有高级专业职称，熟悉论文内容的专家，其中一位必须是其他系（所）的。论文如以软件设计或开发为主，评阅人中应有人熟悉软件，并须进行软件验收。在收到评阅人同意答辩时，方可组织答辩。如遇一名论文评阅人不同意，则增聘一名；如遇两名论文评阅人不同意，则不能答辩，可修改论文后重新申请。学位论文应进行评审和答辩，答辩时，硕士生应能恰当地回答与论文有关的问题，包括与论文有关的专业基础理论和有关专门知识的问题。

The thesis / dissertation should be concise, rigorous and accurate in theoretical basis and computation. The oral presentation of the findings should be conducted with a pragmatic scientific attitude. The anonymous review of the thesis /dissertation requires at least two reviewers with senior titles who are familiar with the research area. The third reviewer should come from other institutions. The oral defense can only be conducted with the approval of the reviewers over the quality of the dissertation. If one reviewer disapproves it, another reviewer should be added; if two reviewers reject the paper, the applicants must revise their thesis / dissertation and go through the review process again before taking oral thesis / dissertation defense. When going through the oral defense, candidates are supposed to answer questions related to the thesis / dissertation and demonstrate their mastery of basic specialized theories and knowledge.

七、培养环节时间节点 (Timeline and milestones)

	课程学习 Course Work	开题报告 Dissertation Proposal	中期考核 Mid - term Assessment	预答辩 Pre-oral defense Reporting	论文答辩 Thesis//Dissertation Defense
硕士 Masters programs	第一学年 First academic	第二学期 Second semester	第三学期 Third Semester	第四学期（最后一个学期） Fourth semester (Last semester)	

博士 Doctoral programs			第四学期 Fourth semester	第六学期（最后一个学期） Sixth semester (Last semester)
----------------------------	--	--	-------------------------	--

八、能源动力类全英文课程目录 (Graduate Course Catalog in Power and Energy)

课程编号 Course Code	课程名称 Course Title	授课教师 Instructor	学分 Credits	是否学位课 Degree Course or Not	开课季节 Season
ENPO700103	数值传热学 Numerical Heat Transfer	陶文铨	3	Y	秋季 Autumn Term
NUCL610903	核反应堆数值分析 Numerical Analysis of Thermal Hydraulic in Nuclear Reactor	秋穗正	2	Y	秋上 TFirst Half of Autumn Term
ENPO610603	非线性动力系统的稳定性、 分岔及其数值分析 Stability Bifurcation and Numerical Analysis for the Nonlinear Dynamic Systems	张家忠	2	N	秋下 The Second Half of Autumn Term
ENPO611203	高等燃烧学 Advanced Combustion Theory	汤成龙,姜雪	2	N	春上 The First Half of Spring Term
EVNG710103	环境工程原理 Principles of Environmental Engineering	郑春莉	2	N	春下 The Second Half of Spring Term
ECND810803	环境经济学 Environmental Economics	冯江涛	2	N	春下 The Second Half of Spring Term
EVNG810203	环境工程中的高级氧化技 术 Advanced Oxidation Technology in Environmental Engineering	饶永芳	2	N	秋上 The First Half of Autumn Term
ENPO612003	热工与流体基础 Fundamental of Thermodynamics And Heat Transfer	杨卫卫	2	N	春上 The First Half of Spring Term
ENPO240603	流体力学 Fluid Mechanics	孙金菊	2	N	春上 The First

课程编号 Course Code	课程名称 Course Title	授课教师 Instructor	学分 Credits	是否学位课 Degree Course or Not	开课季节 Season
					Half of Spring Term
ENPO612103	能源战略与能源经济 Energy strategy and Energy economics	王树众, 徐东海	2	N	春下 The Second Half of Spring Term
ENPO060103	电子器件冷却及数据中心 制冷技术 Thermal Management and Cooling Technology of Electronic Packages and Data Centers	陈良,侯予	2	N	秋下 The Second Half of Autumn Term
NUCL810603	核燃料材料学基础 Fundamentals of Nuclear Reactor Fuels – A Materials Perspective	恽迪,柳文波	2	N	秋下 The Second Half of Autumn Term
ENPO071003	电力电子设备热管理技术 Thermal management for electronics	余小玲	2	N	春上 The First Half of Spring Term
ENPO811003	生物医学纳米机电系统导 论 Introduction to Biomedical Nano-Electromechanical Systems	范士冈	2	N	春下 The Second Half of Spring Term
ENPO810903	燃气轮机冷却 Fundamental Basis and Applications of Advanced Cooling Technology in Gas Turbines	晏鑫,刘钊	2	N	春下 The Second Half of Spring Term
ENPO811103	传递现象 Transport Phenomena	陈一东	2	N	春下 The Second Half of Spring Term

课程编号 Course Code	课程名称 Course Title	授课教师 Instructor	学分 Credits	是否学位课 Degree Course or Not	开课季节 Season
ENPO690103	先进测量技术在能源工程中的应用 Applications of advanced measurement technologies on energy engineering	王珍珍 Yoshihiro Deguchi	2	N	春下 The Second Half of Spring Term
ENPO611803	燃烧与流动光学诊断技术 Optical diagnostics on Combustion and Flow	王金华, 李倩倩	2	N	秋上 The First Half of Autumn Term
ENPO751103	燃烧化学 Combustion Chemistry	张英佳, 魏衍举	2	Y	秋下 The Second Half of Autumn Term
ENPO751203	现代燃烧科学及能源利用技术 Modern Combustion Science and Energy Utilization Technology	王学斌, 熊小鹤	2	Y	秋下 The Second Half of Autumn Term
NUCL810803	中子技术及其应用 Neutron Technology and Its Application	王盛, 王洁	2	N	春下 The Second Half of Spring Term
NUCL810703	核电厂控制系统设计 Control System Design for Nuclear Power Plants	孙培伟, 魏新宇,等	2	N	秋下 The Second Half of Autumn Term
ENPO713003	容积式压缩机 Positive-displacement Compressor	冯健美, 彭学院, 吴华根	2	N	秋下 The Second Half of Autumn Term
ENPO611903	高效低污染能源转化原理 Principle of Efficient Energy Conversion with Low Emissions	刘银河, 王长安	2	N	秋上 The First Half of Autumn Term
ENPO840103	建筑热动力学及其应用 Thermodynamic Cycles and	赖天伟,侯予	2	N	春上 The First

课程编号 Course Code	课程名称 Course Title	授课教师 Instructor	学分 Credits	是否学位课 Degree Course or Not	开课季节 Season
	Applications in Buildings				Half of Spring Term
ENPO640103	储能系统与技术 Energy Storage System and Technology	孙中国	2	N	秋下 The Second Half of Autumn Term
ENPO640303	气溶胶/纳米颗粒工程 Aerosol/Nanoparticle Engineering	David Y.H.Pei	2	N	春下 The Second Half of Spring Term
ENPO640403	光催化 Photocatalysis	陈玉彬, 刘茂昌	2	N	秋下 The Second Half of Autumn Term
ENPO640503	新能源材料及器件的现代分析测试技术 Modern Analysis and Testing Technology of New-energy Materials and Devices	师进文, 敬登伟	2	N	秋下 The Second Half of Autumn Term
ENPO640603	计算流体力学基础及其应用 Fundamental of Computational Fluid Dynamics and its Application	雷贤良, 刘向阳	2	N	秋下 The Second Half of Autumn Term
NUCL640103	核反应堆严重事故分析进展 Advance in Severe Accident Analysis of Nuclear Reactors	张斌,李良星	2	Y	春下 The Second Half of Spring Term
ENPO640703	叶轮机械原理与进展 Fundamentals and the recent developments of turbomachinery	李景银	2	N	秋下 The Second Half of Autumn Term

课程编号 Course Code	课程名称 Course Title	授课教师 Instructor	学分 Credits	是否学位课 Degree Course or Not	开课季节 Season
ENPO640803	交通运输替代燃料 Alternative Fuels for Transportation	王金华, 李倩倩	2	N	秋上 The First Half of Autumn Term
ENPO640903	制冷系统仿真技术及应用 Simulation of Refrigeration Systems and Its Applications	鱼剑琳, 钱苏昕	2	N	春下 The Second Half of Spring Term
EVNG640103	高级热化学转化技术 Advanced thermal-chemical technologies	全翠,高宁博	2	N	秋下 The Second Half of Autumn Term
ENPO740103	纳流控学 Nanofluidics	孙成珍	2	N	秋上 The First Half of Autumn Term
ENPO641003	蒸汽发生器热工水力学 Thermal Hydraulics in Steam Generators	王长安	2	N	春下 The Second Half of Spring Term
ENPO740203	喷雾与液滴流体动力学与 运输 Fluid Dynamics and Transport of Droplets and Sprays	周致富,陈斌	2	N	秋上 The First Half of Autumn Term
AASP840103	太阳能利用 Solar Energy Utilization	刘立军,李早 阳	2	N	秋下 The Second Half of Autumn Term
ENPO641103	湍流第一课 A First Course in Turbulence	张洋,郭朋华	2	N	秋下 The Second Half of Autumn Term

课程编号 Course Code	课程名称 Course Title	授课教师 Instructor	学分 Credits	是否学位课 Degree Course or Not	开课季节 Season
ENPO641203	生物传热学基本理论与方法 Principle and methods in bio-heat transfer	李东,陈斌	2	N	春下 The Second Half of Spring Term
ENPO840203	制冷低温系统的设计与实现 Design and Implementation of Refrigeration and Cryogenic systems	侯予,黄东, 陈良	3	N	春季 Spring Term
NUCL640303	加速器真空技术概论 Introduction to Vacuum Technology in Accelerators	曹良志	2	Y	春上 The First Half of Spring Term
ENPO641303	复杂界面多相流的数值模拟 Numerical Simulation of Multiphase Flow with Complex interface	骆政园	2	N	春下 The Second Half of Spring Term
NUCL740103	先进电子显微镜实验室 Advanced Electron Microscopy Laboratory	臧航	2	N	秋下 The Second Half of Autumn Term
NUCL740203	乏燃料后处理技术 The reprocessing Technology of Spent nuclear fuel	张清民	2	N	春上 The First Half of Spring Term
NUCL640403	核腐蚀科学与工程 Nuclear Corrosion Science and Engineering	柳文波	2	N	秋上 The First Half of Autumn Term
EVNG610603	废水生物处理技术 Biological Treatment of Wastewater	梁继东	2	Y	春上 The First Half of Spring Term
CENG810216	多相流计算方法 Computational methods for multiphase flow	周强	2.5	N	秋季 Autumn Term

课程编号 Course Code	课程名称 Course Title	授课教师 Instructor	学分 Credits	是否学位课 Degree Course or Not	开课季节 Season
CENG810416	太阳能热利用技术 Solar Thermal Utilization Technologies	孙杰	2	N	秋季 Autumn Term
CENG640216	化工流体计算动力学基础 Fundamentals of Computational Dynamics for Chemical Fluid	王斯民	2	N	春季 Spring Term
CENG640316	化学反应工程选论 Selected Topics of Chemical Reaction Engineering	段培高	2	Y	秋季 Autumn Term
EVNG710822	非点源污染 Nonpoint Source pollution	吴一平	2	Y	春季 Spring Term
EVNG711022	大气气溶胶监测与防治 Atmospheric Aerosol	程燕	2	N	秋季 Autumn Term
EVNG711122	GIS 在环境管理中的应用 GIS for Environmental management	张猛	2	Y	春季 Spring Term
EVNG711222	地理信息系统导论 Geographic Information systems	张猛	2	N	春季 Spring Term
EVNG711322	数理统计与数据分析 Mathematical Statistics and Data Analysis	吴一平	2	N	春季 Spring Term
EVNG611222	水色遥感原理与应用 Quantitative Remote Sensing	郭伟	2	N	春季 Spring Term
EVNG711522	计算环境流体力学新方法 New Methods in Computational Environmental Fluid Dynamics	张云伟	2	N	春季 Spring Term

经济与金融学院
School of Economics and Finance

经济与金融学院

School of Economics and Finance

经济学专业国际研究生中英文培养方案

Curriculum of the Graduate Program of Economics for International Graduate Students

国际留学生全英文经济学研究生培养项目主要依托西安交通大学“丝绸之路大学联盟”，紧密围绕国家社会经济发展和“一带一路”战略，助力学校“双一流”建设，旨在建立西安交通大学国际教育来华留学经济学品牌，推动与丝绸之路经济带沿线国家和地区乃至世界各国高等院校的校际交流、人才培养、科学研究、政策智库等方面的交流与合作。

Under the national "One Belt One Road" strategy policy and the "Silk Road University Alliance" of Xi'an Jiaotong University, school of economics and finance (SOEF) built the graduate program of Economics to promote the education in economics for the international students. This program will help to improve the cooperation in inter-school exchanges, personnel training, scientific research cooperation, and policy research in different countries and regions not only along the Silk Road but also among the other countries in the world.

一、培养目标 (Program objectives)

通过系统、扎实的经济学专业知识学习和相关必修环节、学术论文等严格训练，培养出具有扎实的经济学基础知识和运用能力，具有跨文化背景、宽阔的国际视野、通晓国际规则并能够适应世界经济和社会未来发展的综合性人才。

Through systematic and solid study of economic professional knowledge and strict training of related requirements and academic papers, this program is aimed to education comprehensive talents with solid basic knowledge and application ability of economics, cross-cultural background, broad international vision, proficiency in international rules and ability to adapt to the future development of the world economy and society.

二、研究方向

博士项目：应用经济学专业

PhD Program: Applied Economics

硕士项目：应用经济学专业
理论经济学专业

Master Program: Applied Economics and Theoretical Economics

三、学习年限

国际硕士研究生学习年限一般为 2-3 年，国际博士研究生学习年限一般为 3-5 年，经批准可适当延长，延长时间不超过 1 年。

The general length of Masters' programs is 2 to 3 years, and the PhD programs is 3 to 5 years. Prolongation (no more than one year) has to be approved by the university.

四、培养方式

1. 国际研究生管理 (International Graduate Management)

西安交通大学国际研究生由国际教育学院负责学籍管理，公共课程由国际教育学院和研究生院负责培养，专业学位课和选修课由学院或导师承担。实践环节、科研等环节根据培养方案由导师或学院负责安排考核。学位授予由学院学位分委员会和校学位委员会进行管理。

The school of International education will be in charge of the management of the enrollment and status of the foreign student, and the major public academic courses will be arranged and delivered by the graduate school and school of international education. The major courses including compulsory and elective courses of Economics will be delivered by School of economics and finance or supervisor. The Practice and research will be the instructed and conducted by the supervisor and school. The degree granting will be administered by the degree approval committee of the school and university.

2. 培养方案制定 (Making cultivating plans)

国际研究生在入学后，应及时在导师的指导下制定个人培养计划，专业学位课由导师选定，选修课可由学生在规定学分要求下自主选修或与导师商定选择后，国际研究生应按照培养计划课程学分要求、必修环节要求与论文要求积极开展学习与科研工作。

After the registration of the university enrollment, the international graduate students should develop the cultivation training plan under the guidance of the supervisor. The major degree course should be selected under the direction of the supervisor, and the elective courses can be selected by the students under the required credits after discussing with the supervisor. The

international students should follow the training plan once it is decided. The international graduate students should complete all the course requirements, compulsory part requirements and thesis and research requirements of the university.

3. 培养过程管理 (Cultivation Process Management)

根据西安交通大学国际研究生培养实施细则要求,国际研究生应遵守学校政策规定,遵守学院各项规定和要求,按时完成导师和任课教师交代的任务。国际研究生的学籍管理参照《西安交通大学研究生学籍学历管理规定》(西交研【2017】90号)执行。

- (1) 指导教师为国际研究生培养第一责任人,导师须将国际研究生纳入自己的研究生团队进行统一管理。
- (2) 国际研究生必须按照学校规定准时上课,不迟到、不早退、不旷课。国际学生由任课教师点名并记考勤,学院、研究生院、国际教育学院不定期进行抽查,考勤情况作为课程成绩及奖学金年度评审的重要参考。请假必须由学生提出书面申请,并获得导师、学院、国际教育学院批准后生效。未按要求办理请假手续,以旷课处理。
- (3) 存在课程累计3门(含补考)不及格者,终止培养;开题或中期考核不通过且重新开题或检查仍未通过者,终止培养;由于学习态度等原因,导师及学院认为不宜继续培养这,终止培养。终止培养的国际研究生,若完成全部培养课程要求,由国际教育学院发给课程结业证书,如未完成规定课程,可由学院提供学习成绩单。

According to the requirements of the International Graduate Training Regulations of Xi'an Jiaotong University, international graduate students should abide by the school's policy and comply with the regulations and requirements of the school, and complete the tasks of the supervisor and the teacher as required. The management of international postgraduate students is carried out in accordance with official document: "Regulations on the Management of Postgraduate Academic Degrees of Xi'an Jiaotong University" (XJTU[2017] No. 90).

- (1) The supervisor is mainly responsible for the international graduate student, and the supervisor must incorporate the international graduate students into his or her postgraduate team for the overall training.
- (2) International graduate students must attend classes on time according to school regulations. Any circumstances of late, early leaving or absent from classes without permission is forbidden. The Attendance rate will be

calculated as part of the final exam scores. Attendance is also an important reference for the annual review of the course results and scholarships. All leaving request must be submitted by the student with the signature of the supervisor, the dean of the school and international education school.

(3) If the students failed in 3 courses (including the resit exams), the studying will be terminated; if the students failed in the thesis topic selecting assessment or mid-term assessment for 2 times, the training will be terminated; if the supervisor or the school decided that the students is not qualified to the program due to his or her bad study attitude or behavior in the university, the school and university have the right to make the decision of the expulsion. The school can provide academic transcripts for the expelled student.

五、课程学习

根据《西安交通大学国际研究生按类培养实施细则》(以下简称《细则》)规定经济学专业国际硕士研究生和国际博士研究生学分与课程要求如下,经济学国际博士研究生共应修够45学分,其中课程学习35学分,必修环节10学分;课程学习(35学分)包括公共学位课6学分,专业学位课15学分,选修课14学分。

International Ph.D students in Economics should complete 45 credits in total, including 35 credits for course study and 10 credits for other compulsory requirements. 35 Course credits include 6 credits for university public degree courses, 15 credits for major degree courses and 14 credits for elective courses.

经济学国际硕士研究生共应修够39学分,其中课程学习35学分,必修环节4学分;课程学习(35学分)包括公共学位课6学分,专业学位课15学分,选修课14学分。

International Master students in Economics should complete 39 credits in total, including 35 credits for course study and 4 credits for other compulsory requirements. 35 Course credits include 6 credits for university public degree courses, 15 credits for major degree courses and 14 credits for elective courses.

The international master's program and PhD program credits and course requirements for Economics are as follows:

国际博士研究生课程设置与学分要求

(Curriculum Design and Credit Requirements for PhD)

国际硕士研究生课程设置与学分要求

(Curriculum Design and Credit Requirements for Master Students)

课程类型 (Course Module)	序号 (NO.)	全校统一编码 (Course Code)	课程名称 (Course Name)	学分 (Credit)	备注 (Note)
公共学位课 (Public Courses)	1	LITE6101	中国概况 (二) (Outline of China II)	2	必修 6 学分 (A minimum of 6 credits required)
	2	LITE6102	综合汉语 (二) (Comprehensive Chinese II)	2	
	3		政治理论 (B) (Political Theory B)	2	
专业学位课 (Compulsory Courses)	1	增设	中国经济发展专题 (Topics on China's Economic Development)	3	必修 (Compulsory)
	2	ECND640119	经济学研究方法论 (Research Methodology of Economics)	3	
	3	ECND640319	微观经济理论与应用 (Microeconomic Theory and Application)	3	
	4	ECND640219	宏观经济学: 理论与政策 (Macroeconomics: Theory and Policy)	3	
	5	增设	计量经济学 I (Econometrics I)	3	
选修课 (Elective Course)	1	增设	高级微观经济理论 I (Advanced Microeconomics Theory I)	3	必修 (Compulsory)
	2	增设	高级微观经济理论 II (Advanced Microeconomics Theory II) *	3	
	3	增设	高级宏观经济学 I (Advanced Macroeconomics I) *	3	
	4	增设	高级计量经济学 I (Advanced Econometrics I)	3	
	5	增设	国际金融市场及交易策略 (International Financial Markets and Trading Strategies)	2	至少选修 2 学分 (select one course, 2 credits required)
	6	增设	区域经济 (Regional Economics)	2	
	7	ECND741819	国际税收 (International Taxation)	2	
	8	ECND741919	国际商务谈判 (International Business Negotiation)	2	
必修环节 (Compulsory Activity) (PhD)	1	BXHJ8003	学术活动(讲座)(博) (Lecture)(PhD)	2	必修 10 学分 (10 credits required)
	2	BXHJ8004	开题报告 (Proposal)	2	
	3	BXHJ8001	中期考核 (Mid-term Assessment)	6	

课程类型 (Course Module)	序号 (NO.)	全校统一编码 (Course Code)	课程名称 (Course Name)	学分 (Credit)	备注 (Note)
公共学位课 (Public Courses)	1	LITE6101	中国概况 (一) (Outline of China I)	2	必修 6 学分 (A minimum of 6 credits required)
	2	LITE6102	综合汉语 (一) (Comprehensive Chinese I)	2	
	3		政治理论 (A) (Political Theory A) (master)	2	
专业学位课 (Compulsory Courses)	1	增设	中国经济发展专题 (Topics on China's Economic Development)	3	必修 (Compulsory)
	2	ECND640119	经济学研究方法论 (Research Methodology of Economics)	3	
	3	ECND640319	微观经济理论与应用 (Microeconomic Theory and Application)	3	
	4	ECND640219	宏观经济学: 理论与政策 (Macroeconomics: Theory and Policy)	3	
	5	增设	计量经济学 I (Econometrics I)	3	
选修课 (Elective Course)	1	增设	高级微观经济理论 I (Advanced Microeconomics Theory I)	3	至少选修 14 学分 (select 7 courses, 14 courses required)
	2	增设	高级微观经济理论 II (Advanced Microeconomics Theory II) *	3	
	3	增设	高级宏观经济学 I (Advanced Macroeconomics I) *	3	
	4	增设	高级计量经济学 I (Advanced Econometrics I)	3	
	5	增设	国际金融市场及交易策略 (International Financial Markets and Trading Strategies)	2	
	6	增设	区域经济 (Regional Economics)	2	
	7	ECND741819	国际税收 (International Taxation)	2	
	8	ECND741919	国际商务谈判 (International Business Negotiation)	2	

必修环节 (Compulsory Activity (master))	1	BXHJ6003	学术活动(讲座)(硕) (Lecture) (Master)	1	必修 4 学分 (4 credits required)
	2	BXHJ6007	中期考核 (Mid-term Assessment)	3	

六、必修环节 (Other Compulsory Requirements)

1. 学术活动 (讲座) (Lectures)

•国际硕士研究生学术活动 (讲座) 分为必听讲座和选听讲座。必听讲座包括“科学道德与学风建设”1 次、“职业生涯发展与规划导论”1 次；选听讲座包括与学科紧密相关的“学科前沿系列专题讲座” (由各二级学科组织若干教授对本学科前沿知识进行讲座, 每个讲座由 5 个以上讲座组成) 一个系列和在全校范围内选听“学术讲座”1 次, 完成全部 8 个讲座后记 1 学分。

•Master students are required to attend 8 lectures, including 2 compulsory (Scientific Morality and Construction of Study Style, and Introduction to Career Development and Planning), 5 regarding discipline-specific forefront information (organized by individual schools), and 1 elective within the university. Students will obtain 1 credit with full attendance to 8 lectures.

•国际博士研究生学术活动 (讲座) 分为必听讲座和选听讲座。必听讲座为“科学道德与学风建设”; 选听讲座包括与学科紧密相关的“学科前沿系列专题讲座” (由各二级学科组织若干教授对本学科前沿知识进行讲座, 每个讲座由 5 个以上讲座组成) 一个系列和在全校范围内选听“学术讲座”1 次, 自己公开讲座 1 次, 完成后记 2 学分。

•Doctoral students are required to attend 7 lectures, including a compulsory (Scientific Morality and Construction of Study Style), 5 regarding discipline-specific forefront information (organized by individual schools), and 1 elective within the university. In addition, they are also required to give a lecture. Students will obtain 2 credits by completing the whole series of activities.

2. 开题报告 (Thesis topic selecting assessment)

国际研究生应在第二学年第一学期完成开题报告, 选题报告以《西安交通大学硕士/博士学位论文选题报告》为模板。研究生选题报告应在研

究生选题报告应在导师的指导下, 通过阅读文献资料, 调研等确定研究课题和范围。内容应包括选题意义、研究依据、国内外研究动态分析、研究目标、研究内容和拟解决的关键问题、创新点、研究计划及文献综述等。报告完成后, 须参加公开的学位论文选题答辩会, 答辩内容为 20 分钟 PPT 汇报+15 分钟答辩专家提问, 答辩专家由 3-5 名相关领域高级职称以上专家组成, 其中 1 名担任组长。国际研究生选题报告考核以学院年度相关规定为准。

International graduate students should complete the thesis topic selecting assessment at the beginning of the first semester of the second year, and the topic selection report will be based on the “Xi’an Jiaotong University Master/PhD thesis Selection Report”. The graduate topic selection report should be finished by the students under the guidance of the supervisor, and the research topics and scope should be determined by multiple literature reading and research work. The content should include the meaning of the topic, the research basis, the research dynamic analysis at home and abroad, the research objectives, the research content and the key issues to be solved, the innovation points, the research plan and the literature review. After the report is completed, students are required to participate in the public thesis topic selection defense meeting. The content includes 20 minutes PPT report and 15 minutes Q&A section from the defense committee. The assessment committee should be consisted of 3-5 professors in the relevant fields.

3. 中期考核 (Mid-term Assessment)

国际研究生硕士生中期考核以论文进展报告为主, 一般应在第三学期结束前完成, 硕士生填写《西安交通大学硕士生中期报告》, 经导师审核, 学院审核后, 参加学院或导师组织的答辩, 答辩内容为 20 分钟左右论文进展汇报和专家提问。答辩专家应由 3-5 名相关领域高级职称以上专家组成。

国际研究生博士生中期考核内容包括: 1. 基础文献阅读报告; 2. 论文进展报告。国际博士生应向中期考核小组提交以下书面材料并按时参加考核: 1. 成绩单; 2. 基础文献阅读报告; 3. 获奖或发表论文证明材料; 4. 论文进展报告。国际博士生中期考核由学院统一组织, 考核小组由 3-5 名博导任委员, 中期考核通过者可继续培养, 未通过者实行末位淘汰进行分流。具体参照《西安交通大学关于博士研究生中期考核的若干规定》(西交研〔2014〕25 号)

The mid-term evaluation of international postgraduate master students is mainly based on the progress report of the thesis. It should be completed before the end of the third semester. The master students complete the "Mid-term Report of Masters of Xi'an Jiaotong University", which will be firstly reviewed by the supervisor. Then the school or departments will arrange the assessment defense for the students. The evaluation committee will be consisted of 3-5 senior professional in the relevant fields.

The mid-term evaluation of international PhD students includes: 1. Basic literature reading report; 2. Dissertation progress report. International PhD students should submit the following materials to the mid-term assessment team and participate in the assessment as required: 1. Transcripts; 2. Basic literature reading reports; 3. Awards certificate or published papers; 4. Dissertation progress report. The mid-term assessment of international PhD students will be organized by the school and the assessment team consists of 3-5 senior professors. Those who fail to pass the assessment will be expelled from the program. The details please refer to the "Requirements on the Mid-term Assessment of PhD students of Xi'an Jiaotong University" (XJTU [2014] No. 25)

4. 预答辩 (Pre Defense for Thesis or Dissertation)

•明确完成学位论文后在系(所)单位内进行预答辩的要求,具体参照《西安交通大学学位授予工作暂行办法》(西交研〔2003〕14号制定)。

国际研究生必须按时参加学院或导师组织的论文预答辩,研究生应严格按照学院要求向预答辩委员会提交符合西安交通大学研究生学位论文规范的完整学位论文。预答辩委员会一般由3-5名研究生导师组成。预答辩委员会将对研究生提交的论文及汇报的研究成果进行严格审查:包括论文选题意义、论文是否有独立见解和创新性、论文工作量是否饱满、论文格式规范是否符合要求等,并提出修改意见。研究生须根据答辩意见认真修改论文,并填写修改说明表,经学院预答辩小组审批后,方可进入送审阶段。对于问题较多的学位论文,须修改后重新参加预答辩。

The pre defense will be conducted by the school after the completion of the thesis or dissertation, detailed information please refer to the "Requirements for the Granting of Degrees in Xi'an Jiaotong University" (XJTU [2003] No. 14).

International graduate students must attend the pre defense organized by

the school or supervisor as required. The graduate students should submit a complete dissertation in accordance with the requirements of the specifications of the graduate degree thesis of Xi'an Jiaotong University. The Pre-Defense Committee is generally composed of 3-5 graduate supervisors. The Pre-Defense Committee will conduct a rigorous review of the research papers submitted by graduate students and the research results of the report: including the significance of the topic selection, whether the paper has independent opinions and innovative thoughts, whether the thesis or dissertation has been put enough efforts and the research foundation is solid, whether the paper format specification meets the requirements, etc. Graduate students must carefully modify the papers according to the defense opinions, and fill out the revised justification form. After approval by the pre-defense team, the thesis or dissertation will be conducted in the following processes.

5. 学位论文 (Dissertation)

(1) 学位论文工作是研究生培养的关键环节,也是研究生培养质量的重要体现,研究生应在导师的指导下独立完成论文,努力提高学位论文写作水平,不断加强理论知识储备,培养科研创新能力,提升用所学的知识发现问题、分析问题和解决问题的能力;

(2) 国际研究生博士学位论文开展时间一般为2年,硕士学位论文开展时间一般为1年。学位论文应包括文献搜集、选题、理论分析、调查或实证、主体撰写等工作,并通过选题报告、中期报告、格式审查、预答辩、诚信检测、盲审、正式答辩等环节的考核。研究生应在导师指导下,严格遵守学校及学院要求的论文时间节点,保证学位论文研究和写作工作有计划、有步骤地完成;

(3) 论文选题必须具有科学性和创新性,应与一定层次的科研项目相结合,对学科前沿领域或国家经济建设、科技进步和社会发展具有重要意义。学院鼓励国际研究生选择与其生源国有密切相关的研究课题或选择交叉学科的课题。选题报告包括课题选题来源及依据、研究内容、理论模型、研究条件、进展安排、预期成果、可能存在的问题、参考文献等部分内容。开题报告应在导师和专家参加时公开进行,专家组应对开题报告进行充分论证,并提出是否同意开题的意见;研究生应充分吸取专家意见,及时修改开题报告。修改后的《开题报告》经导师,答辩专家签署意见后,交研

究生教务办存档;

(4) 研究生学位论文应具有系统性和完整性, 博士学位论文应能表明作者确已在本学科上掌握了坚实宽广的基础理论和系统深入的专门知识, 具有独立从事科学研究工作的能力, 并在科学或技术工作上做出了创造性的成果。硕士学位论文应能表明作者确已在本学科掌握坚实的理论基础, 对所研究的课题有新的见解, 有从事科学研究的能力。学位论文应符合西安交通大学研究生学位论文规范、字数和格式要求, 应能反映作者较好地掌握了经济学学科专业的研究方法和技能, 学术观点必须言之有理、言之有据, 论文内容应层次分明、数据可靠、文字简练、推理严谨、立论正确。

(1) The dissertation work is a key point in postgraduate training and an important manifestation of the quality of postgraduate training. Graduate students should complete the thesis independently under the guidance of the supervisor, strive to improve the writing level of the dissertation, continuously strengthen the theoretical knowledge and cultivate the ability of scientific research and innovation, and improve the ability to discover, analyze, and solve problems with what you have learned;

(2) The time for the work of international postgraduate doctoral dissertation is generally 2 years, and usually 1 year for the master's thesis. The dissertation should include literature collection, topic selection, theoretical analysis, investigation or empirical, subject writing, etc. The thesis or dissertation must pass the process including the selection of the topic report, mid-term report, format review, pre-defense, plagiarism check, blind review, formal defense and other processes of the assessment. The thesis or Dissertation must finished by the student independently under the guidance of the supervisor, the graduate students should strictly abide by the deadlines required by the supervisor and the school to ensure that the research and writing of the dissertation is completed in a planned and step-by-step process;

(3) The topic selection must be scientific and innovative, and should be combined with a certain level of scientific research projects, which is of great significance to the frontier areas of the discipline or national economic construction, scientific and technological progress and social development. The university encourages international graduate students to choose research

topics that are closely related to their country of origin or to select topics that are interdisciplinary. The topic selection report includes the source and basis of the topic, the research content, the theoretical model, the research conditions, the progress arrangement, the expected results, possible problems, and references.

(4) The master thesis should be systematic and complete. The doctoral dissertation should indicate that the author has mastered a solid and broad basic theory and systematic and in-depth expertise in the discipline, and has the ability to independently engage in scientific research, and made creative achievements in scientific or technical work. The master's thesis should indicate that the author has mastered a solid theoretical foundation in the subject, has new insights into the research topics, and has the ability to engage in scientific research. The dissertation should also meet the requirements of the specification, number of words and format of the graduate degree thesis of Xi'an Jiaotong University. It should reflect that the author has mastered the research methods and skills of the economics major. The academic viewpoint must be justified and well-founded and the whole passage should be hierarchical, reliable, concise, rigorous, and correct.

七、培养环节时间节点(Timeline and milestones)

•列出本学科国际硕士或博士研究生各关键培养环节的时间点及具体要求。

	课程学习 (Course Work)	开题报告 (Opening Report)	中期考核 (Mid-term Assessment)	预答辩 (Final Academic Report)	论文答辩 (Thesis/Dissertation Defense)
硕士 (Master Program)	The first year	Beginning of the 3 rd semester	End of the 3 rd Semester	Beginning of the 4 th semester	End of the 4 th Semester (in May)
博士(PhD Program)	The first year	Beginning of the 3 rd semester	The 4 th semester	Beginning of the 6 th semester	End of the 6 th semester (in May)

金禾经济研究中心
Jinhe Center for Economic Research

金禾经济研究中心

Jinhe Center for Economic Research

经济学专业国际研究生中英文培养方案

International Graduate Programs in Economics

国际留学生全英文经济学研究生培养项目主要依托西安交通大学“丝绸之路大学联盟”，紧密围绕国家社会经济发展和“一带一路”战略，助力学校“双一流”建设，旨在建立西安交通大学国际教育来华留学经济学品牌，推动与丝绸之路经济带沿线国家和地区乃至世界各国高等院校的校际交流、人才培养、科学研究、政策智库等方面的交流与合作。

Under the national “One Belt One Road” strategy policy and the “Silk Road University Alliance” headquartered at Xi'an Jiaotong University, school of Finance and Economics (SOFE) and Jinhe Center for Economic Research co-build the graduate program of Economics to promote the education in economics for international students. This program will help to improve the cooperation in inter-school exchanges, personnel training, scientific research cooperation, and policy research in different countries and regions not only along the Silk Road but also among other countries in the world.

一、培养目标 (Program objectives)

通过系统、扎实的经济学专业知识和相关必修环节、学术论文等严格训练，培养出具有扎实的经济学基础知识和运用能力，具有跨文化背景、宽阔的国际视野、通晓国际规则并能够适应世界经济和社会未来发展的综合性人才。

Through systematic and solid study of specialized economic knowledge and strict training of related required activities and academic papers, this program aims to educate students to become talents with comprehensive abilities and with solid basic knowledge and application ability of economics, cross-cultural basis, broad international vision, familiarity with international rules and ability to adapt to the future development of the world economy and society.

二、研究方向 (Research fields)

博士项目：应用经济学专业

PhD Program: Applied Economics

硕士项目：应用经济学专业

理论经济学专业

Masters Programs: Applied Economics; theoretical Economics

三、学习年限 (Length of programs)

国际硕士研究生学习年限一般为 2-3 年，国际博士研究生学习年限一般为 3-5 年，经批准可适当延长，延长时间不超过 1 年。

The length of Masters Programs is 2 to 3 years, and the PhD program is 3 to 5 years. Prolongation

(no more than one year) has to be approved by the university.

四、培养方式 (Program overview)

1. 国际研究生管理 (International Graduate Management)

西安交通大学国际研究生由国际教育学院负责学籍管理，公共课程由国际教育学院和研究生院负责培养，专业学位课和选修课由学院或导师承担。实践环节、科研等环节根据培养方案由导师或学院负责安排考核。学位授予由学院学位分委员会和校学位委员会进行管理。

The school of International Education will be in charge of the management of the enrollment and the school roll of the international graduate students, and the major public academic courses will be arranged and delivered by the Graduate School and School of International Education. The major courses including compulsory and elective courses of Economics will be delivered by Jinhe Center for Economic Research and School of Finance and Economics. The Practicum and research will be the instructed and implemented by the supervisor and the schools. The degree granting will be administered by the degree granting approval committees of the Schools and the University.

2. 培养方案制定 (Formulating cultivating plans)

国际研究生在入学后，应及时在导师的指导下制定个人培养计划，专业学位课由导师选定，选修课可由学生在规定学分要求下自主选修或与导师商定选择后，国际研究生应按照培养计划课程学分要求、必修环节要求与论文要求积极开展学习与科研工作。

After registration at the university, the international graduate students shall decide on their training plan under the guidance of the supervisor. The degree courses should be selected under the direction of the supervisor, and the elective courses can be selected by the students according to the required credits after discussing with the supervisor. The international students should follow the training plan once it is decided. The international graduate students should complete all the course requirements, compulsory activities requirements and thesis / dissertation research requirements of the university.

3. 培养过程管理 (Cultivation Process Management)

根据西安交通大学国际研究生培养实施细则要求，国际研究生应遵守学校政策规定，遵守学院各项规定和要求，按时完成导师和任课教师交代的任务。国际研究生的学籍管理参照《西安交通大学研究生学籍学历管理规定》（西交研【2017】90号）执行。

According to the requirements of the International Graduate Training Regulations of Xi'an Jiaotong University, international graduate students should abide by the school's policy and comply with the regulations and requirements of the school, and complete the tasks of the supervisor and the teacher as required. The management of international graduate students is carried out in accordance with the official document: “Regulations on the Management of Postgraduate Academic Degrees of Xi'an Jiaotong University” (XJTU[2017] No. 90).

(1) 指导教师为国际研究生培养第一责任人，导师须将国际研究生纳入自己的研究生团队进行统一管理。

(1) The supervisor is the chief responsible person for international graduate students, and the supervisor must incorporate the international graduate students into his or her postgraduate team for the overall training.

(2) 国际研究生必须按照学校规定准时上课，不迟到、不早退、不旷课。国际学生由任课教师点名并记考勤，学院、研究生院、国际教育学院不定期进行抽查，考勤情况作为课程成绩及奖学金年度评审的重要参考。请假必须由学生提出书面申请，并获得导师、学院、国际教育学院批准后生效。未按要求办理请假手续，以旷课处理。

(2) International graduate students must attend classes on time according to school regulations. Any circumstances of being late, leaving early or being absent from classes without permission is forbidden. The Attendance rate will be calculated as part of the final exam scores. Attendance is also an important reference for the annual review of the course results and scholarships. All leaving requests for absence from the school must be submitted by the student with the signature of the supervisor, the dean of the school and international education school.

(3) 存在课程累计 3 门（含补考）不及格者，终止培养；开题或中期考核不通过且重新开题或检查仍未通过者，终止培养；由于学习态度等原因，导师及学院认为不宜继续培养这，终止培养。终止培养的国际研究生，若完成全部培养课程要求，由国际教育学院发给课程结业证书，如未完成规定课程，可由学院提供成绩单。

(3) If students fail in 3 courses (including the re-taken exams), the program of the students will be terminated; if the students fail in the Opening report on thesis topic selection or mid-term assessment for 2 times, the training will be terminated; if the supervisor or the school decides that the a student is not qualified to the program due to his or her bad study attitude or behavior in the university, the school and university have the right to make the decision of the expulsion. The school can provide academic transcripts for the expelled students.

五、课程学习(Courses Work)

根据《西安交通大学国际研究生按类培养实施细则》（以下简称《细则》）规定经济学专业国际硕士研究生和国际博士研究生学分与课程要求如下，经济学国际博士研究生共应修够 45 学分，其中课程学习 35 学分，必修环节 10 学分；课程学习（35 学分）包括公共学位课 6 学分，专业学位课 15 学分，选修课 14 学分。

International Ph.D students in Economics should complete 45 credits in total, including 35 credits for course study and 10 credits for other compulsory requirements. 35 Course credits include 6 credits for university public degree courses, 15 credits for degree courses and 14 credits for elective courses.

经济学国际硕士研究生共应修够 39 学分，其中课程学习 35 学分，必修环节 4 学分；课程学习（35 学分）包括公共学位课 6 学分，专业学位课 15 学分，选修课 14 学分。

International Masters students in Economics should complete 39 credits in total, including 35 credits for course studies and 4 credits for other compulsory requirements. 35 Course credits include 6 credits for university public degree courses, 15 credits for major degree courses and 14 credits for elective courses.

The international master's program and PhD program credits and course requirements for Economics are as follows:

国际硕士研究生课程设置与学分要求

Curriculum Design and Credit Requirements for Masters Students

课程类型 Course Module	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
公共学位课 Public Courses	1	272003	LITE610112	中国概况（一） Outline of China I	2	必修 Compulsory
	2	272004	LITE610227	综合汉语（一） Comprehensive Chinese I	2	
	3	141007	MLMD600614	Governance Reform in China	2	
专业学位课 Compulsory Courses	1	212024	ECND740321	经济学分析方法 Analytic Method of Economics	3	必修 Compulsory
	3	212022	ECND740121	中级微观经济学 Intermediate Microeconomics	3	
	5	212023	ECND740221	中级宏观经济学 Intermediate Macroeconomics	3	
	7	212025	ECND740421	计量经济学 Econometrics	3	
	8	213006	ECND741121	高级微观经济学（1） Advanced Microeconomics I	3	
选修课 Elective Course	1	212027	ECND740621	高级微观经济学（II）* Advanced Microeconomics II*	3	至少选修 7 门课，至少选修 14 学分 Minimum of 14 credits required
	2	213007	ECND741221	高级宏观经济学* Advanced Macroeconomics	3	
	3	213008	ECND741321	时间序列分析* Time Series Analysis *	2	
	4	213009	ECND741421	面板数据分析* Panel Data Analysis *	2	
	7	212026	FINA740521	公司金融 Corporate Finance	2	
	8	212029	INTE740221	国际贸易 International Trade	2	
	9	212028	ECND740721	产业经济学 Industrial Economics	2	
	13	212030	ECND840121	经济学前沿讲座 Lectures for Frontier Economics	2	
必修环节 Compulsory Activities (Masters)	1	001997	BXHJ600399	学术活动(讲座)(硕) Lectures (Masters)	1	必修 4 学分 4 credits required
	2	001983	BXHJ600799	中期考核 Mid-term Assessment	3	

国际博士研究生课程设置与学分要求

Curriculum Design and Credit Requirements for PhD

课程类型 Course Module	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
公共学位课 Public Courses	1	121069	LITE610112	中国概况 (二) Outline of China II	2	必修 Compulsory
	2	271001	LITE610227	综合汉语 (二) Comprehensive Chinese II	2	
	3	141008	MLMD600714	Chinese Marxism and Contemporary	2	
专业学位课 Compulsory Courses	1	212024	ECND740321	经济学分析方法 Analytic Method of Economics	3	必修 Compulsory
	3	212022	ECND740121	中级微观经济学 Intermediate Microeconomics	3	
	5	212023	ECND740221	中级宏观经济学 Intermediate Macroeconomics	3	
	7	212025	ECND740421	计量经济学 Econometrics	3	
	8	213006	ECND741121	高级微观经济学 (1) Advanced Microeconomics I	3	
选修课 Elective Course	1	212027	ECND740621	高级微观经济学 (II) * Advanced Microeconomics II*	3	必修 Compulsory
	2	213007	ECND741221	高级宏观经济学* Advanced Macroeconomics	3	
	3	213008	ECND741321	时间序列分析* Time Series Analysis *	2	
	4	213009	ECND741421	面板数据分析* Panel Data Analysis *	2	
	7	212026	FINA740521	公司金融 Corporate Finance	2	至少选修 2 门课, 至少选修 4 学分 Minimum of 4 credits required
	8	212029	INTE740221	国际贸易 International Trade	2	
	9	212028	ECND740721	产业经济学 Industrial Economics	2	
	13	212030	ECND840121	经济学前沿讲座 Lectures for Frontier Economics	2	
必修环节 Compulsory Activities	1	001999	BXHJ800399	学术活动(讲座) (博) Lectures (PhD)	2	必修 10 学分 10 credits required
	2		BXHJ800499	开题报告	2	

课程类型 Course Module	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
(PhD)		001986		Thesis /Dissertation Proposal		
	3	001994	BXHJ800199	中期考核 Mid-term Assessment	6	

六、培养环节 (Other Compulsory Requirements)

1. 学术活动 (讲座) (Lectures)

•国际硕士研究生学术活动 (讲座) 分为必听讲座和选听讲座。必听讲座包括“科学道德与学风建设”1 次、“职业生涯发展与规划导论”1 次; 选听讲座包括与学科紧密相关的“学科前沿系列专题讲座”(由各二级学科组织若干教授对本学科前沿知识进行讲座, 每个讲座由 5 个以上讲座组成) 一个系列和在全校范围内选听“学术讲座”1 次, 完成全部 8 个讲座后记 1 学分。

•Masters students are required to attend 8 lectures, including 2 compulsory ones (one on Scientific Morality and Construction of Study Style, and one on Introduction to Career Development and Planning), 5 lectures in a series regarding discipline-specific frontiers (organized by respective schools), and 1 elective within the university. Students will obtain 1 credit with full attendance to 8 lectures.

•国际博士研究生学术活动 (讲座) 分为必听讲座和选听讲座。必听讲座为“科学道德与学风建设”; 选听讲座包括与学科紧密相关的“学科前沿系列专题讲座”(由各二级学科组织若干教授对本学科前沿知识进行讲座, 每个讲座由 5 个以上讲座组成) 一个系列和在全校范围内选听“学术讲座”1 次, 自己公开讲座 1 次, 完成后记 2 学分。

•Doctoral students are required to attend 7 lectures, including one compulsory lecture (one on Scientific Morality and Construction of Study Style), 5 lectures in a series regarding discipline-specific frontiers (organized by respective schools), and 1 elective within the university. In addition, they are also required to give a lecture. Students will obtain 2 credits by completing the whole series of activities.

2. 开题报告 (Thesis /Dissertation Proposal)

国际研究生应在第二学年第一学期完成开题报告, 选题报告以《西安交通大学硕士/博士学位论文选题报告》为模板。研究生选题报告应在研究生导师的指导下, 通过阅读文献资料, 调研等确定研究课题和范围。内容应包括选题意义、研究依据、国内外研究动态分析、研究目标、研究内容和拟解决的关键问题、创新点、研究计划及文献综述等。报告完成后, 须参加公开的学位论文选题答辩会, 答辩专家由 3-5 名相关领域专家组成, 其中 1 名担任组长。国际研究生选题报告考核以学院年度相关规定为准。

International graduate students should complete the thesis / dissertation proposal assessment at the beginning of the first semester of the second academic year, and the proposal will be drafted according to the format stipulated in “Xi’an Jiaotong University Masters/PhD Thesis / Dissertation Proposal”. The proposal should be completed under the guidance of the supervisor, and the research topic and scope are determined by through literature reading and research work. The content should include the significance of the topic, the research basis, the dynamic analysis of the research home and abroad, the research

objectives, the research content and the key issues to be solved, the innovative points, the research plan and the literature review. After the proposal is completed, students are required to go through a defense meeting to get it approved. The assessment committee consists of 3-5 professors in the relevant fields.

3. 中期考核 (Mid-term Assessment)

国际研究生硕士生中期考核以论文进展报告为主, 一般应在第三学期结束前完成, 硕士生填写《西安交通大学硕士生中期报告》, 经导师审核, 学院审核后, 参加学院或导师组织的答辩, 答辩内容为 20 分钟左右论文进展汇报和专家提问。

国际研究生博士生中期考核内容包括: 1. 基础文献阅读报告; 2. 论文进展报告。国际博士生应向中期考核小组提交以下书面材料并按时参加考核: 1. 成绩单; 2. 基础文献阅读报告; 3. 获奖或发表论文证明材料; 4. 论文进展报告。国际博士生中期考核由学院统一组织, 考核小组由 3-5 名博导任委员, 中期考核通过者可继续培养, 未通过者实行末位淘汰进行分流。具体参照《西安交通大学关于博士研究生中期考核的若干规定》(西交研〔2014〕25 号)

The mid-term assessment of international Masters students is mainly focused on the progress of the thesis / dissertation research. It should be completed before the end of the third semester. The Masters students complete the "Mid-term Report of the Research for Masters Students of Xi'an Jiaotong University", which will be firstly reviewed by their supervisor. Then the school or departments will arrange for an assessment for the students.

The mid-term assessment of international PhD students includes the following: 1) Basic literature reading report; 2) Dissertation progress report. International PhD students should submit the following materials to the mid-term assessment team and participate in the assessment as required: 1) course transcripts; 2) basic literature reading reports; 3) Awards certificate or published papers; 4) Dissertation progress report. The mid-term assessment of international PhD students will be organized by the respective school and the assessment team consists of 3-5 professors. Those who fail to pass the assessment will be expelled from the program. For details, please refer to the "Requirements on the Mid-term Assessment of PhD Students of Xi'an Jiaotong University" (XJTU [2014] No. 25)

4. 预答辩 (Pre-oral Defense Reporting)

•明确完成学位论文后在系(所)单位内进行预答辩的要求, 具体参照《西安交通大学学位授予工作暂行办法》(西交研〔2003〕14 号制定)。

国际研究生必须按时参加学院或导师组织的论文预答辩, 研究生应按照学院要求向预答辩委员会提交符合西安交通大学研究生学位论文规范的完整学位论文。预答辩委员会一般由 3-5 名研究生导师组成。预答辩委员会将对研究生提交的论文及汇报的研究成果进行严格审查: 包括论文选题意义、论文是否有独立见解和创新性、论文工作量是否饱满、论文格式规范是否符合要求等, 并提出修改意见。研究生须根据答辩意见认真修改论文, 并填写修改说明表, 经学院预答辩小组审批后, 方可进入送审阶段。对于问题较多的学位论文, 须修改后重新参加预答辩。

The pre defense reporting will be implemented by the respective school after the completion of the thesis or dissertation. For detailed information, please refer to the "Xi'an Jiaotong University Tentative Regulations on the Granting of Degrees" (XJTU [2003] No. 14).

The graduate students should submit a complete dissertation in accordance with the requirements of the specifications of the graduate degree thesis of Xi'an Jiaotong University. The Pre-Defense Assessment Committee is generally composed of 3-5 graduate supervisors. The Pre-Defense Assessment

Committee will conduct a rigorous review of the dissertation the research results and findings, including the significance of the topic, whether the dissertation has shown independent opinions and innovative thoughts, whether much efforts has been put into the thesis or dissertation and whether the research basis is solid, whether the paper format meets the requirements, etc. Graduate students must carefully revise their thesis or dissertation according to the opinions and suggestions by the pre-defense assessment committee, and fill out the revised justification form. After approval by the pre-defense assessment team, the thesis or dissertation can be sent out for reviewing. Those with more problems must be re-assessed.

5. 学位论文 (Thesis /Dissertation)

(1) 学位论文工作是研究生培养的关键环节, 也是研究生培养质量的重要体现, 研究生应在导师的指导下独立完成论文, 努力提高学位论文写作水平, 不断加强理论知识储备, 培养科研创新能力, 提升用所学的知识发现问题、分析问题和解决问题的能力;

(2) 国际研究生博士学位论文开展时间一般为 2 年, 硕士学位论文开展时间一般为 1 年。学位论文应包括文献搜集、选题、理论分析、调查或实证、主体撰写等工作, 并通过选题报告、中期报告、格式审查、预答辩、诚信检测、盲审、正式答辩等环节的考核。研究生应在导师指导下, 严格遵守学校及学院要求的论文时间节点, 保证学位论文研究和写作工作有计划、有步骤地完成;

(3) 论文选题必须具有科学性和创新性, 应与一定层次的科研项目相结合, 对学科前沿领域或国家经济建设、科技进步和社会发展具有重要意义。学院鼓励国际研究生选择与其生源国有密切相关的研究课题或选择交叉学科的课题。选题报告包括课题来源及依据、研究内容、理论模型、研究条件、进展安排、预期成果、可能存在的问题、参考文献等部分内容。开题报告应在导师和专家参加时公开进行, 专家组应对开题报告进行充分论证, 并提出是否同意开题的意见; 研究生应充分吸取专家意见, 及时修改开题报告。修改后的《开题报告》经导师, 答辩专家签署意见后, 交研究生教务办存档;

(4) 研究生学位论文应具有系统性和完整性, 博士学位论文应能表明作者确已在本学科上掌握了坚实宽广的基础理论和系统深入的专门知识, 具有独立从事科学研究工作的能力, 并在科学或技术工作上做出了创造性的成果。硕士学位论文应能表明作者确已在本学科掌握坚实的理论基础, 对所研究的课题有新的见解, 有从事科学研究的能力。学位论文应符合西安交通大学研究生学位论文规范、字数和格式要求, 应能反映作者较好地掌握了经济学学科专业的研究方法和技能, 学术观点必须言之有理、言之有据, 论文内容应层次分明、数据可靠、文字简练、推理严谨、立论正确。

1) The thesis / dissertation work is a key point in graduate training and an important manifestation of the quality of graduate training. Graduate students should complete the thesis / dissertation independently under the guidance of the supervisor, strive to improve the writing level of the dissertation, continuously strengthen the theoretical knowledge and cultivate the ability of scientific research and innovation, and improve the ability to discover, analyze, and solve problems with what you have learned;

2) The time spent on the thesis /dissertation is generally 2 years for PhD candidates, and usually 1 year for the Masters students. The thesis / dissertation should include literature review, topic selection,

theoretical analysis, investigation or empirical analysis, the body of the thesis or dissertation writing, etc. The thesis or dissertation must pass the process of thesis/dissertation proposal, mid-term assessment, format review, pre-defense assessment, plagiarism check, blind review, formal defense and other assessments. The thesis or Dissertation must be completed by the student independently under the guidance of the supervisor, the graduate students should strictly abide by the deadlines required by the supervisor and the school to ensure that the research and writing of the dissertation is completed as planned in a step-by-step process;

3) The topic selection must be scientific and innovative, and should be combined a some research project, which is of great significance to the frontiers of the discipline or national economic construction, science and technology progress and social development. The university encourages international graduate students to choose research topics that are closely related to their country of origin or to select topics that are interdisciplinary. The thesis / dissertation proposal includes the source and basis of the topic, the research content, the theoretical model, the research conditions, the progress plans, the expected results, possible problems, and references.

4) The Masters theses should be systematic and complete. The doctoral dissertation should indicate that the author has mastered solidly and broadly basic theories and systematic and in-depth expertise in the discipline, and has the ability to engage in scientific research independently, and made innovative achievements in scientific or technical work. The Masters theses should indicate that the author has had a solid theoretical foundation in the discipline, has new insights into the research topic, and has the ability to engage in scientific research. The dissertation should also meet the requirements of the specification, number of words and format of the graduate degree thesis of Xi'an Jiaotong University. It should reflect that the author has mastered the research methods and skills of the economics major. The academic viewpoint must be justified and well-founded and the whole passage should be hierarchical, reliable, concise, rigorous, and correct.

七、培养环节时间节点(Timeline and milestones)

	课程学习 Course Work	开题报告 Dissertation Proposal	中期考核 Mid-term Assessment	预答辩 Final Pre-oral defense Reporting	论文答辩 Thesis/Dissertation Defense
硕士 Masters Programs	first year	Beginning of the 3 rd semester	End of the 3 rd Semester	Beginning of the 4 th semester	End of the 4 th Semester (in May)
博士 PhD Programs	first year	Beginning of the 3 rd semester	4 th semester	Beginning of the 6 th semester	End of the 6 th semester (in May)

电子与信息学部 *Faculty of Electronic and Information Engineering*

电子与信息学部

Faculty of Electronic and Information Engineering

电子信息与软件类国际研究生培养方案

International Graduate Programs in Electronic Information and Software

一、培养目标 (Program objectives)

一) 硕士研究生培养目标 (Masters Programs)

培养学生在电子信息与软件相关领域的知识和技能, 通过课程学习和自主研究, 培养学生独立从事科学研究、指导和组织课题进行研究工作, 使其能独立承担对学科发展或国民经济建设有意义的研究, 能胜任研究机构、高等院校和产业部门有关方面的教学、研究、开发与管理工作的。

The Masters programs aim to help the students to gain knowledge and skills in selected fields of Electronic Information and Software, including Electronic Science and Technology, Information and Telecommunication Engineering, Automation Science and Technology, and Computer Science and Technology. Students will develop their analyzing, designing and experimental abilities through course studies and independent research for a successful career as professional engineer or pursuing higher academic degree program.

二) 博士研究生培养目标 (Doctoral Programs)

(一) 电子科学与技术学科 (Electronic Science and Technology)

1. 具有坚实的数学、物理基础知识, 掌握本学科坚实、宽广的基础理论, 对所从事的研究方向及相关领域具有系统深入的专门知识, 掌握电子科学与技术及相关一级学科中有关领域的研究发展趋势, 熟练掌握相关的实验技术及计算机技术, 对本学科的某一方面有深入的研究并有独创性的研究成果。

After training in the programs, PhD candidates will have a solid foundation in mathematics and physics, master solidly and broadly basic theories of the electronic science and technology, have systematic and in-depth knowledge in electronic science and technology research areas and related fields, understand the research trends in electronic science and technology, master skillfully the related experimental and computer technologies, and achieve original research results in an area of the discipline through the in-depth studies.

2. 具有独立从事科学研究、指导和组织课题进行研究工作及科技开发工作的能力, 以及严谨求实的科学态度和工作作风; 具有成为该学科学术带头人的素质。能独立承担对学科发展或国民经济建设有意义的研究或开发课题, 能胜任研究机构、高等院校和产业部门有关方面的教学、研究、开发、工程技术或管理工作。

After training in the programs, PhD candidates will be able to independently conduct scientific

research, organize and lead related scientific and technological research projects based on rigorous and scientific attitudes, be qualified to become an candidate of leader in electronic science and technology research field, be qualified for the teaching, research, development, engineering or management positions in research institutes, universities and related industries.

3. 至少熟练掌握一门外国语, 可选修第二外国语。能熟练地阅读本专业的外文资料, 具有一定的写作能力和进行国际学术交流的能力。

After training in the programs, PhD candidates will be proficient in one foreign language, and have some skills in a second foreign language, and be able to read the foreign literature of the discipline studied, and to write and communicate academically in a foreign language.

(二) 信息与通信工程学科 (Information and Communication Engineering)

本学科培养德、智、体、美全面发展的信息与通信工程领域的科学研究人才、工程技术专门人才和高等学校师资力量。具体要求要求如下:

This program aims at student developments all-roundly in morality, intellectuality, fitness, and aesthetics of the students via well balanced knowledge structure, and competence-oriented and innovation-cultivating education so as to cultivate them to become researchers, engineering specialists and university teachers in the field of information and communication engineering. The detailed objectives are as follows:

1. 在信号与信息处理, 通信与信息系统方面掌握坚实宽广的基础理论和系统深入的专门知识和必要的实验技能, 熟悉所从事研究方向的科学技术发展动向。

Having solid foundation, systematic and detailed knowledge, and experimental skills in Information and Communication Engineering, and being knowledgeable of the development trends of the technologies in their research areas;

2. 具有独立从事本学科领域内科学研究、专门技术工作和教学工作能力。具有实事求是, 严谨的科学作风。能胜任研究机构、高等院校和产业部门有关方面的教学、研究、开发、工程技术或管理工作。

Being able to conduct research, technical skills work, and teaching work independently; have developed a rigorous and down-to-earth work style; being qualified for jobs of teaching, research and deployment, as well as other positions in engineering technology or management.

3. 掌握至少一门外国语, 并能熟练地进行专业文献阅读和论文撰写。

Being proficient in one foreign language and being able to read foreign literature and to write scientific papers in the foreign language.

(三) 控制科学与工程学科 (Control Science and Engineering)

本学科培养德、智、体全面发展, 且知识结构合理、综合素质高和创新能力强的高级专门人才。取得本学科工学博士学位的毕业生, 将能在控制科学与工程及相关学科领域的科学研究、大学教学、技术开发及工程管理等发挥带头人的作用。具体要求如下:

This program aims at all-round development of students in morality, intellectuality, fitness, and aesthetics via well balanced knowledge structure, and comprehensive competence-oriented and innovation-cultivating education so as to foster talents that can play a leading role as researchers, university teachers, technology developer and engineering managers in Control Science and Engineering. The detailed objectives are as follows:

1. 掌握坚实宽广的基础理论和系统深入的专业知识，在独立从事科学研究、技术开发、组织科学研究和从事教学等方面具有很强的能力；能把握本学科一些新的研究方向，熟悉所从事研究的最新科技发展动态；至少熟练掌握一门外语，能熟练阅读和翻译专业文献，能用外语进行交流和撰写科技论文。

Having solid foundation, systematic and in-depth knowledge, and experimental skills in Control Science and Engineering; being familiar with the trends of the technologies in their research areas; being proficient in at least one foreign language; be able to read and translate foreign literature and to write scientific papers and communicate in a foreign language.

2. 具有实事求是、科学严谨的工作作风以及协作、奉献、勇于创新的精神，在实际工作中勇于承担责任，勇于解决科学技术难题。

Having developed a down-to-earth and scientific and rigorous work style while demonstrating wiliness in collaboration, sacrifice and having the courage to innovate, and shoulder responsibilities, solving technical difficulties.

3. 在本领域内取得创造性成果。

Be able to accomplish innovative achievements s in the field of Control Science and Engineering.

(四) 计算机科学与技术学科(Computer science and Technology)

1. 具有良好的数学基础知识，掌握本学科坚实、宽广的基础理论，对所从事的研究方向及相关领域具有系统深入的专门知识，掌握计算机科学与技术及相关一级学科中有关领域的研究发展趋势，熟练掌握相关的计算和实验技术，对本学科的某一方面有深入的研究并有独创性的研究成果。

After training in this program, the PhD candidates will have a sound basis in mathematics, mastery of solid and broad foundation of basic theories, have systematic and in-depth specialized knowledge in the research area undertaken and the related fields, understanding the developmental trends of the computer science and technology and the related first level disciplines, skillful mastery of the related computer and experimental technologies, and have in-depth research in an area of the discipline undertaken, and have produced original research outcomes.

2. 具有独立从事科学研究、指导和组织课题进行研究工作及科技开发工作的能力，以及严谨求实的科学态度和工作作风；具有成为该学科学术带头人的素质。能独立承担对学科发展或国民经济建设有意义的研究或开发课题，能胜任研究机构、高等院校和产业部门有关方面的教学、研究、开发、工程技术或管理工作。

After training in the programs, The PhD candidates will be able to independently conduct scientific research, organize and lead related scientific and technological research projects based on rigorous and scientific attitudes, be qualified to become an candidate of leader in computer science and technology research field, be qualified for the teaching, research, development, engineering or management positions in research institutes, universities and related industries.

3. 熟练掌握一门外国语，可选修第二外国语。能熟练地阅读本专业的英文资料，具有一定的写作能力和进行国际学术交流的能力。

Graduates will be proficient in the first foreign language, and have some skills in a second foreign language. Graduates will be able to read the literature of the discipline undertaken in a foreign language be able to write and communicate in international academic setting.

4. 具有良好的职业道德素养，心理健康，身体健康。

Graduates will be well-fostered in ethics and morality, psychological health and physical health.

(五) 网络空间安全学科(Cyberspace Security)

当前的网络空间已经扩展为物理（网络）设备空间、网络链路与应用空间、现实社会空间、虚拟社会空间等组成的多样空间。区别于只注重计算机网络为主的网络安全研究，网络空间安全主要围绕网络空间中基础设施、信息系统、网络、运行数据与内容、软件系统与应用中所存在的安全问题，本学科方向借助计算机、自动化、通信和数学等学科交叉的优势，开展理论、方法、技术、系统、应用、管理和法制等方面的研究。为适应网络空间安全的需要，本专业具体要求如下：

Cyber space has expanded into a variety of spaces consisting of physical space & cyber space, and real social space & virtual social space. Different from the network security, cyberspace security mainly focuses on the security problems in infrastructure, information systems, networks, operational data and content, software systems and applications in cyberspace. In order to meet the demand of cyberspace security, the specific requirements of this major are as follows:

1. 熟练掌握坚实的网络空间安全的基础理论和系统的专门知识，深入了解学科的发展现状、趋势和研究前沿；较熟练地掌握一门外国语，具有良好的写作能力和进行国际学术交流能力；具有独立从事本学科和相关学科领域的科学研究的能力，能够熟练运用网络空间安全学科的方法、技术与工具，能够胜任网络空间安全领域的基础研究、应用研究、关键技术及系统相关方面的教学、研究、开发、工程技术或管理工作。

Graduates will be well-informed solidly in the basic theory and systematic specialized knowledge e of cyberspace security, gain a deep understanding of the development status, trends and research frontiers of the discipline. And also graduates will be proficient in a foreign language with good writing skills and international academic communication skills, have the ability to independently conduct scientific research in the discipline undertaken and the related disciplines, be skillful in the application of the methods, techniques and tools of the cyberspace security discipline, be qualified for the job positions of basic research, applied research, key technologies and system related areas in teaching, research, development, engineering or management.in the field of cyberspace security.

2. 具有实事求是、科学严谨的工作作风及协作、奉献、勇于探索的精神，在实际工作中勇于承担责任，勇于解决科学技术难题。

Graduates will have the working style of seeking truth from facts, scientific and rigorous work style, collaboration, dedication, and courage to explore. They must take responsibility in practical work and strive to solve scientific and technological problems.

二、研究方向 (Research fields)

1. 硕士研究生研究方向 (Research fields for Masters Students)

电子科学与技术、信息与通信工程、计算机科学与技术、控制科学与工程与网络空间安全五个一级学科研究方向。

There are five research fields, including: Electronics Science and Technology, Information and Communication Engineering, Control Science and Engineering, Computer Science and Technology,

Cyberspace Security

II. 博士研究生研究方向 (Research fields for Doctoral Students)

(一) 电子科学与技术学科 **Electronics Science and Technology**

1. 物理电子学(Physical Electronics)

带电粒子光学现代理论和计算技术, 微纳米器件电子束离子束加工与检测技术, 强流电子束物理和高功率微波技术, 气体放电与等离子体电子学, 信息显示器件与技术, 纳光子学基础理论和实验技术, 新型光子材料与器件, 非线性光学, 超快光子技术, 固态照明器件、真空微电子技术。

Fundamentals of Quantum Information Technology and Ultrafast Photonics, Nonlinear Optics; Fundamental Theory and Experimental Techniques of Nano Photonics; Novel Photonic Materials and Devices; Photoelectric Imaging and Image Processing; Modern Theory and Computational Techniques of Charged Particle Optics; Electron Beam Ionization of Micro-Nano Devices Beam Processing and Inspection Technology; Microwave and Terahertz Electronics, Discharge and Plasma Electronics; Information Display Devices and Technology, Solid State Lighting Devices; Vacuum Microelectronics Technologies, Wide Band-gap Semiconductor Materials and Devices.

2. 电路与系统(Circuits and Systems)

VLSI 电路与系统设计, 电路与系统 CAD 及设计自动化, 数字图象与数字视频处理, 功率电子学, 非线性电路与系统, 信息显示系统设计与实现。

VLSI Circuit and System Design; Circuit and System CAD and Design Automation; Digital Image and Digital Video Processing; Power Electronics; Nonlinear Circuits and Systems; Information Display System Design and Implementation.

3. 微电子学与固体电子学(Microelectronics and Solid State Electronics)

深亚微米器件模型与仿真, 微波功率器件及其集成, 化合物半导体器件; 深亚微米工艺集成; 片上系统、超大规模集成电路及 ASIC 设计与测试; 微电子机械系统设计与制造; 纳米电子材料与器件, 电子陶瓷材料与器件, 铁电单晶材料, 铁电薄膜与器件, 机敏材料与器件, 纳米复合功能材料与器件, 电解质材料与器件。

Deep Submicron Device Model and Simulation, Microwave Power Devices and Integrations, Compound Semiconductor Devices; Deep Submicron Processing Integration; On-Chip Systems, VLSI and ASIC Design and Testing; Microelectronic Mechanical System Design and Manufacturing; Nanoelectronic Materials and Devices, Piezoelectric Single Crystal Materials and Devices, Wide Band Gap Semiconductor Single Crystal Materials, Electro-Optical Crystals, Magnetoelectric Materials and Devices, Ferroelectric Single Crystal Materials, Ferroelectric Ceramic Materials, Ferroelectric Thin Films and Devices, Spin Electron Materials and Devices, Integrated Multi-Ferroic Materials and Devices; Smart Materials and Devices, Nano-Composite Functional Materials and Devices, Electrolyte Materials and Devices.

4. 电磁场与微波技术(Electromagnetic Field and Microwave Technology)

电磁场理论与技术: 电磁场理论与应用, 天线理论与技术, 电波传播, 复杂介质中的场与波, 电磁散射与逆散射, 环境电磁学与电磁兼容技术, 计算电磁学。微波与毫米波理论与技术: 微波电路, 微波网络, 微波集成电路, 微波测量理论与技术, 微波信息处理与成像。

Electromagnetic field theory and application, antenna theory and technology, wave propagation,

field and wave in complex media, electromagnetic scattering and inverse scattering, environmental electromagnetics and electromagnetic compatibility technology, computational electromagnetics; microwave circuits, microwave networks, microwave integrated circuits, microwaves measurement theory and technology, microwave information processing and imaging; high power microwave transmissions.

(二) 信息与通信工程学科(Information and Communication Engineering)

1. 通信与信息系统 (Communication and information system)

现代通信理论与应用, 移动网络, 无线传感器网络, 无线网络安全, 卫星通信, 数据广播, 无线通信系统设计, 移动通信与无线接入, 天线与电波传播等。

The research areas include modern communication theory and applications, mobile internet, wireless sensor network, wireless network security, satellite communications, data broadcasting, design of wireless communication system, mobile communication and wireless access, antennas and propagation, etc.

2. 信号与信息处理 (Signal and information processing)

多媒体信号处理与传输, 医学成像与图像处理, 多天线信号处理, 雷达信号处理, 复杂媒质中的波传播及信号分析, 语音信号分析、处理与识别, 音频、视频信号数据压缩技术等。

将根据信息工程的需要, 科学技术的发展增设其他研究方向。

The research areas include multimedia processing and transmission, biomedical imaging and related image processing, multi-antenna signal processing, radar signal processing, wave propagation in complex media and signal analysis, speech signal processing and recognition, data compression technology of audio and video signals, etc.

Apart from the above research areas, we can also add other research areas according to the development needs of the discipline of information and communication engineering.

(三) 控制科学与工程学科(Control Science and Engineering)

1. 控制理论与控制工程(Control Theory and Control Engineering)

非线性控制系统的频率分析与综合理论、控制理论及应用、复杂系统的故障检测与诊断、随机控制与自适应控制、过程工业的综合自动化(检测、控制与管理)、多智能体理论与技术、鲁棒控制理论及应用等。

The research areas include Frequency analysis and synthesis theory of the nonlinear control system, control theory and application, fault detection and diagnosis of complex systems, stochastic control and adaptive control, Integrated automation of process industry (detection, control and management), multi-agent theory and technologies, robust control theory and application, etc.

2. 检测技术与自动化装置 (Detection Technologies and Automatic Equipment)

智能检测与智能信息处理、虚拟仪器与软测量技术、嵌入式系统与智能仪器仪表、无接触图像测量与模式识别、现场总线技术及应用、基于 Internet 远程测控技术、智能控制理论及其应用、智能交通系统、过程控制与应用、机器人控制与数控技术、图像信息融合。

The research areas include intelligent detection and intelligent information processing, virtual instruments and soft measuring techniques, embedded system and intelligent instrument, contactless image measurement and pattern recognition, field-bus technologies and application, internet-based

remote measurement and control technology, intelligent control theory and applications, intelligent transportation systems, process control and applications, robot control and digital control techniques, image information fusion, etc.

3. 系统工程 (System Engineering)

复杂系统智能控制的理论与方法、复杂网络化系统优化理论与应用(电力系统、制造系统等)、网络安全理论与技术、离散事件动态系统控制与调度方法、智能电网、智能机器人与多智能体系统、计算社会学、大数据建模与分析、机器学习与智能计算、先进制造中的关键系统集成理论与技术等。

The research areas include theory and methods of intelligent control for complex systems, optimization theory and applications of complex networked system (power system, manufacturing system, etc.), network security theory and technologies, control and scheduling methods for discrete-event dynamic system, smart grid, intelligent robot and multi-agent system, computational sociology, big data modeling and analysis, machine learning and intelligent computing, and integration theory and technologies for key-systems in advanced manufacturing, etc.

4. 模式识别与智能系统 (Pattern Recognition and Intelligent Systems)

模式识别与计算机视觉、机器学习与智能系统、计算机视觉与数字视频专用 VLSI 设计、网络媒体计算与可视化技术、计算视频与可伸缩编码、自适应信号处理、空间机器人视觉系统与太空信息工程等。

The research areas include pattern recognition and computer vision, machine learning and intelligent systems, computer vision and VLSI design application-specific digital video, network media computing and visualization technologies, computing video and scalable video coding, adaptive signal processing, vision system of space robot and space information engineering, etc.

5. 导航制导与控制(Navigation, Guidance and Control)

多源信息融合理论与应、信息融合与目标信息处理、不确定性推理与推断、导航、定位与测控技术、飞行器控制与仿真等。

根据学科发展需要, 将增加或修订研究方向。

The research areas include theory and applications of multi-source information fusion, information fusion and target information processing, uncertainty reasoning and inference, navigation, positioning and measurement and control technologies, aircraft control and simulation, etc.

According to the development of the discipline of control science and engineering, the research areas can be expanded or revised.

(四) 计算机科学与技术学科(Computer Science and Technology)

1. 高性能计算(High-performance Computing)

并行计算理论与技术, 高性能计算机体系结构, 分布式存储系统, 云计算与大数据技术, 虚拟化技术, 并行计算机系统与自动并行化技术。

The areas of research include the following: Parallel computing theory and technology; high-performance computer architecture; distributed storage systems; cloud computing and big data technology; virtualization technology; parallel computer systems and automatic parallelization technology.

2. 多模态碎片化知识分析、挖掘与融合 (Multi-model fragmentation knowledge analysis, mining

and fusion)

大数据算法与分析技术, 碎片化知识挖掘与融合, 智能网络学习环境理论及技术。

The areas of research include the following: Big data algorithm and analysis technology; fragmentation knowledge mining and fusion; intelligent network learning environment theory and technology.

3. 分布式系统与普适计算 (Distributed Systems and Pervasive Computing)

分布式计算与系统, 操作系统与虚拟化技术, 大数据系统与云计算, 区块链技术与应用, 云安全与数据隐私保护, 普适计算与智能感知, 物联网与边缘计算等。

The areas of research include the following: Distributed computing and systems, operating systems and virtualization technology; big data systems and cloud computing; blockchain technology and applications; cloud security and data privacy protection; pervasive computing and intelliSense; internet of things and edge computing.

4. 智能计算与大数据技术(Intelligent Computing and Big Data Technology)

机器学习与数据挖掘, 软件工程数据挖掘, 网络数据挖掘, 计算智能与挖掘技术, 海量数据管理, 数据安全, 大数据计算技术, 计算生物学, 生物信息处理, 医疗健康大数据工程技术。

Areas of research include machine learning and data mining; data mining of software engineering; network data mining, computing intelligence and mining technology; massive data management; data security; big data computing technology; computational biology; biological information processing; the technology of big data in Healthcare.

5. 网络安全与可信计算 (Network Security and Trusted Computing)

密码学, 隐私保护, 可信计算, 物联网与云计算, 大数据与人工智能, 广义人机交互。

根据学科发展需要, 将增加或修订研究方向。

Areas of research include cryptography; privacy protection; trusted computing; internet of things and cloud computing; big data and artificial intelligence; broad human-computer interaction.

The research areas can be expanded or revised according to the development needs of the discipline.

(五) 网络空间安全学科 (Cyberspace Security)

本学科的研究方向有如下方面:

网络空间安全学科有 4 个学科方向: 网络空间安全基础、网络空间大数据处理与内容安全、信息物理融合系统 (CPS) 安全和软件系统安全。

The cyberspace security discipline has four areas of research: Cyberspace infrastructure security, cyberspace big data processing and content security, cyber-physical systems (CPS) security, and software system security.

1. 网络空间基础设施安全 (Cyberspace Infrastructure Security)

本学科方向以网络流量为基本载体, 建立“内外兼顾、监控与预测并举、入侵检测和主动防卫相结合”的多粒度网络安全防卫体系和整体解决方案, 解决无线通信安全、无线传输安全、电磁空间安全、攻击源快速解析定位、不获取流量数据估计僵尸网络在全球分布及危害规模等难题, 提升整体系统安全监控能力。

Our research in this area is to build a multi-granularity defense system for network security, based

on network traffic analysis. This defense system can realize the monitoring and predicting simultaneously with both intrusion detection technology and active defense technology. Meanwhile, we will put forward an integrated solution to the problems in wireless communication and transmission security, electromagnetic space security, fast analytical and location technique of attack source, global distribution estimation and damage scale prediction of Botnet, etc. And that will promote the monitoring capacity for security of the whole system.

2. 网络空间大数据处理与内容安全(Cyberspace Big Data Processing and Content Security)

本学科方向瞄准国家在网络内容安全的重大需求，以海量舆情及色情、暴力等不良网络内容为对象，以针对海量、非结构化、高复杂性网络大数据设计的机器学习与数据挖掘模型与算法为支撑，瞄准理论与关键技术的重大创新需求，包括智能化网络话题的发现、跟踪及动态传播特性分析、多源舆情数据获取、话题动态传播趋势预测等，为网络有害信息传播的监控提供可靠的技术解决方案，并在军事、教育、环保等行业进行产品化推广应用。同时，内容安全延伸问题的研究也将有效推动针对高复杂性数据的新颖机器学习与数据挖掘基础技术的发展。

The area of this research is to deal with Internet content security, using machine learning and data mining models and algorithms as basis for dealing with massive, unstructured, and highly complex network big data, with huge amounts of public opinion and pornography, violence and other bad network content as the research object. The goal target of our research is the major innovations in theory and key technologies, including intelligent network topic discovery, tracking and dynamic propagation characteristics analysis, multi-source public opinion data acquisition, topic dynamic propagation trend prediction, etc. For this, our research results will provide the reliable technical solutions for monitoring the harmful information dissemination of the network and product promotion and application in military, education and environmental protection industry. At the same time, the research on content security extension will also effectively promote the development of new machine learning and data mining basic technologies for high complexity data.

3. 信息物理融合系统 (CPS) 安全 (Cyber-Physical Systems (CPS) Security)

物理系统与信息网络高度融合的新型系统称为信息物理融合系统 (Cyber-Physical Systems, CPS)，是孕育中的第四次工业革命的基础。CPS 由于信息和物理直接融合，系统结构运行机理更为复杂，安全防范的难度大为增加，同时攻击危害将远超过传统信息攻击，CPS 安全保护方法已成为国家重大战略需求。CPS 安全研究具有明显的学科交叉特性，本学科方向借助计算机、自动化、通信与数学等学科交叉的优势，瞄准国家在工业控制系统、基础设施信息化过程中面临的安全威胁，物理系统安全可靠技术和信息网络安全隐私技术，开展理论与关键技术研究，包括 CPS 综合安全模型、信息与物理数据异常融合分析、控制认证、数据云存储与计算安全、无线通信系统安全以及在智能电网、物联网等领域的安全应用。

The new system, in which the physical system and the information network are highly integrated, is called the Cyber-Physical Systems (CPS), which is the basis of the fourth industrial revolution. In cyber-physical systems, due to the direct integration of information and physics, the operating mechanism of the system structure is more complicated, and the difficulty of security protection is greatly increased. At the same time, the attack damage will far exceed the traditional information attack. The CPS security protection method has become a major strategic requirement of the country. CPS security research has obvious interdisciplinary characteristics. The direction of this discipline is based on the advantages of interdisciplinary integration of computer, automation, communication and

mathematics, and aimed at security threats faced by the state in the process of industrial control system and infrastructure information, physical system security and reliability technology and information network security privacy technology to carry out theoretical and key technology research, which includes the CPS comprehensive security model, abnormal fusion analysis of information and physical data, control certification, data cloud storage and computing security, wireless communication system security and security applications in the field of smart grid and the internet of things.

4. 软件系统安全(Software System Security)

本学科方向以软件系统安全分析、保障与提升为切入点，从可信性度量与评测，软件行为与用户行为建模，软件依赖关系建模与测试三方面进行了深入研究，解决了一系列关键科学问题，有效提升软件系统的安全性及可靠性。

根据学科发展需要，将增加或修订研究方向。

The area of this research is based on software system security analysis, guarantee and promotion as the breakthrough point. It has carried out in-depth research on credibility measurement and evaluation, software behavior and user behavior modeling, software dependency modeling and test three aspects to solve a series of problems, which effectively improves the security and reliability of the software system.

The research areas can be expanded or revised according to the development needs of the discipline.

三、学习年限 (Length of programs)

I. 硕士研究生学习年限 (Length of programs for Masters Students)

国际硕士研究生学习年限一般为 2-3 年，经批准可适当延长，延长时间不超过 1 年。

The length of Masters Programs is 2 to 3 years; Prolongation (no more than one year) has to be approved by the university.

II. 博士研究生学习年限 (Length of programs for Doctoral Students)

国际博士研究生学习年限一般为 3-5 年，经批准可适当延长，延长时间不超过 1 年。

The length of doctoral programs is 3 to 5 years. Prolongation (no more than one year) has to be approved by the university.

四、培养方式(Program overview)

I. 硕士研究生培养方式 (Master's Program overview)

研究生培养实行导师负责制，导师根据研究生具体情况，统筹考虑专业基础理论的学习和课题研究工作，在第一学期开始时帮助学生制定培养计划。首先，学生需学习包括中国文化和基础课程在内的各种学科；其次，为学生提供广泛的专业课程和优越的实验条件，使其能了解和学习相关领域的最新知识，培养其独立从事科学研究的能力；第三，学生在第二年进入研究小组，在相应导师的安排和指导下开展研究工作；最后，学生完成论文并申请硕士学位。

Each student will be supervised by a faculty member, who helps to make an education plan for the individual student at the beginning of first semester according to his or her research interest. Firstly, a variety of courses are available, including Chinese culture and fundamental courses; secondly, more specialized courses and laboratory units are introduced for the students to learn the up-to-date knowledge in the interested fields and useful techniques for the further research work. Thirdly, each student joins in

a research group in the second year and carries out research work under the supervision of the supervisor. In the end, the student completes his or her thesis and applies for a Master's degree.

II. 博士研究生培养方式 (Doctoral Program overview)

1. 导师应根据本培养方案的要求与因材施教的原则, 从各个博士生具体情况出发, 在博士生入学三周内制定出博士生的培养计划。

Tutors should follow the instructions of this document and make an individual study plan for the respective doctoral students within three weeks of their first semester.

2. 整个培养过程应贯彻理论联系实际的方针, 使博士生掌握本学科的基础理论和专门知识, 掌握科学研究的基本方法, 并有一定的实验技能。

The education should involve both theoretical and practical learning. The doctoral students should master fundamental theories, specialized knowledge as well as basic methods of scientific research, and have certain experimental skills.

3. 在指导上采取导师负责与系所集体培养相结合的方法。

Tutors take the responsibility in training the doctoral students. At the same time, other research staff in the same research group can co-supervise the doctoral students.

4. 博士生学习应该强调以自学为主, 教师的作用在于启发他的深入思考和正确判断, 要培养博士生的独立分析和解决问题的能力。

The doctoral students should be able to learn by themselves. The role of the tutor is to enlighten and train the students so that they can eventually analyze and solve problems.

5. 在完成学位课程学习和大量阅读具体研究方向上的国内外学术论文并进行初步研究探索之后, 博士生应当在入学后最迟两年之内进行学位论文选题报告。

After finishing courses and intensive literature survey of certain research area followed by preliminary research, the doctoral students should make dissertation proposal within two years of their first semester.

6. 博士生应当积极参加校内外学术报告会、讲座会及其他学术活动。

The doctoral students should actively participate in scientific conferences, seminars, and other forms of academic activities.

7. 博士生培养实行中期考核。第四学期由系里组织一次中期考核, 考核通过者继续攻博; 不通过者, 可以参加下学期的中期考核。

The PhD program has a mid-term assessment. The department will organize the mid-term assessment in the fourth semester. Students who pass the assessment can continue studying; whereas those who fail it may re-take it next semester.

五、课程学习及必修环节 (Curriculum and Compulsory Activities)

I. 硕士研究生课程学习及必修环节 (Curriculum and Compulsory activities for Masters Students)

理工类学术学位硕士生的课程学习应至少取得 24 学分, 包括: 公共课 (汉语 (I) 2 学分、中国概况 (I) 2 学分) 4 学分、专业学位课至少 8 学分, 选修课至少 12 学分, 课程设置与学分详见国际硕士研究生课程设置与学分要求表格。新港报告纳入国际留学生选修课, 学生听够 20 场讲座后可记 2 学分。

The Master's programs must be well balanced, emphasizing one or more theoretical or experimental

aspects of Categories of Electronic Information and Software. At least 24 credits are required to get a Master's degree. Required courses include *Comprehensive Chinese I* (2 credits), *The Outline of China I* (2 credits), degree courses (no less than 8 credits), and elective courses (no less than 12 credits). The detailed credit requirements for each modules and thesis work are shown in the following table. Innovation Harbour Lectures are included in elective courses for international students, 2 credits will be granted after attending 20 Lectures.

国际硕士研究生课程设置与学分要求

Curriculum Design and Credit Requirements of Masters Programs

课程类别 Course Type	序号 No.	课程编号 Course Number	课程编码 Course Code	课程名称 Course Name	学分 Credit	备注 Notes
公共 学位课 Public Course	1	272003	LITE610112	中国概况 (I) (The Outline of China I)	2	必修 4 credits required
	2	272004	LITE610227	综合汉语 (I) (Comprehensive Chinese I)	2	
专业 学位课 Degree Course	1	052004	INFT610105	数字图像处理 (Digital Image Processing)	3	选修至 少 8 学分 A minimum of 8 credits required
	2	052067	EELC611205	材料结构与性能关系 (Structure-property Relations of Materials)	2	
	3	052098	AUTO610905	系统优化与调度 (System Optimization and Scheduling)	2	
	4	052099	AUTO611005	现代测控技术与系统 (Modern Measuring Control Technology and Systems)	2	
	5	052120	AUTO711205	估计与滤波 (Estimation and Filtering)	3	
	6	052172	EELC713105	照明和显示芯片技术 (Chip technology for lighting and display)	2	
	7	052177	EELC713605	高分辨电子显微学 (Introduction to Electron Microscopy)	2	
	8	052187	COMP611205	无线网路与移动计算技术 (Wireless Network and Mobile	2	

课程类别 Course Type	序号 No.	课程编号 Course Number	课程编码 Course Code	课程名称 Course Name	学分 Credit	备注 Notes
				Computing)		
	9	052190	EELC611905	电子薄膜材料及应用 (Electronic thin films and applications)	2	
	10	052191	EELC612005	电子材料与器件原理 (Principles of Electronic Materials and Devices)	2	
	11	052216	EELC612105	CMOS 系统电源管理 (Power Management in CMOS System)	2	
	12	052194	EELC612205	半导体器件物理 (Physics of Semiconductor Devices)	2	
	13	052198	INFT610805	优化理论及其在信号处理和通信中的应用 (Optimization theory and its applications in signal processing and communications)	2	
	14	052199	INFT711805	现代通信技术 (Advanced Communication Technology)	2	
	15	052202	AUTO712305	计算认知科学与工程 (Computational Cognitive Science and Engineering)	2	
	16	052203	INFT711905	数字通信原理 (Principle of Digital Communication)	2	
	17	052204	AUTO712405	大数据与深度学习 (Big Data and Deep Learning)	2	
	18	052207	EELC714605	生物光子学导论 (Introduction to Biophotonics)	2	
	19	053174	INFT712305	多天线技术及其应用 (Multi-Antenna Techniques and Their Applications)	2	

课程类别 Course Type	序号 No.	课程编号 Course Number	课程编码 Course Code	课程名称 Course Name	学分 Credit	备注 Notes
	20	052209	EELC714305	柔性电子学 (Flexible Electronics)	2	
	21	052212	COMP712205	生物信息计算与系统 (Bioinformatics: Computational Systems and Digital Health)	2	
	22	051013	EELC714405	微纳光学 (Micro and Nano-optics)	2	
	23	052176	EELC713505	光电技术导论 (Introduction to Optoelectronic Technology)	2	
	24	052117	EELC711305	有机电子学 (Organic Optoelectronics)	2	
	25	053193	INFT740105	稀疏信号处理及其应用 (Sparse Signal Processing and its Applications)	2	
	26	053194	INFT740205	统计信号处理:基础理论与机器学习方法 (Statistical Signal Processing: Fundamentals and Machine Learning Perspectives)	2	
	27	053191	AUTO740105	信息物理融合系统安全关键技术 (Security in Cyber-Physical Systems)	2	
	28	053190	COMP740105	基于深度学习的自然语言处理 (Natural language processing with deep learning)	2	
	29	053192	EELC740105	高速宽带通讯集成电路设计 (High-Speed Broadband Communication Integrated Circuits Design)	2	
选修课 (Elective Course)	/	/	/	在学院研究生课程目录中选修 Select from the school's curriculum of graduate courses	≥12	选修至少 12 学分

课程类别 Course Type	序号 No.	课程编号 Course Number	课程编码 Course Code	课程名称 Course Name	学分 Credit	备注 Notes
						A minimum of 12 credits required
必修环节 (Compulsory Activity)	1	001997	BXHJ600399	学术活动(讲座)硕 (Lectures)(Masters)	1	必修4学分 4 credits required
	2	001983	BXHJ600799	中期考核(硕) (Mid-term Assessment)	3	

II. 博士研究生课程学习及必修环节 (Curriculum and Compulsory Activities for Doctoral Programs)

1. 本学科博士生在校期间至少修满 22 学分。课程学习总学分为 12 学分，其中学位课不少于 8 学分，选修课可在全校范围内任选，不少于 4 学分。必修环节 10 学分，包括学术活动（讲座）2 学分、开题报告 2 学分、中期考核 6 学分。最终学术报告（预答辩）和学位论文为必修环节，应按相关要求严格规范预答辩、正式答辩程序，有序组织开展相关工作，保证学位授予质量。自 2018 年起，最终学术报告（预答辩）和学位论文环节不再计入学分。

The doctoral students should obtain at least 22 credits. The total credits are 12 credits, including 8-credit compulsory courses and 4-credit elective courses. Elective courses can be chosen from other departments. The compulsory activities merit 10 credits, including 2-credit academic activities (e.g., lectures), 2-credit dissertation proposal, and 6-credit mid-term assessment. The final dissertation oral defense and thesis are also part of the compulsory activities. The final dissertation (and preliminary defense) should strictly follow standard procedure to ensure the quality of the PhD degree.

2. 博士研究生在全校范围内选听“学术讲座”6 次，自己公开讲座 1 次，完成后记 2 学分。新港报告纳入国际留学生选修课，学生听够 20 场讲座后可记 2 学分。

The doctoral students should attend 6 academic lectures at the campus and give a public lecture by themselves. They will get 2 credits after fulfilling this requirement. Innovation Harbour Lectures are included in elective courses for international students, 2 credits will be granted after attending 20 Lectures.

3. 博士生应通过大量阅读具体研究方向上的学术论文并进行初步研究探索后，在第二学期完成开题报告，通过后计 2 学分。

The doctoral students should conduct intensive literature survey in certain research area followed by preliminary study, and write dissertation proposal in the second semester. They will get 2 credits after fulfilling this requirement.

4. 参加系里组织的中期考核，通过后记 6 学分。

Those who pass the mid-term assessment will get 6 credits.

5. 完成最终学术报告（预答辩）1 次。

The student has to do a pre-oral defense reporting as the final academic lecture.

国际博士研究生课程设置与学分要求 Curriculum Design and Credit Requirements of Doctoral Programs

课程类别 Course Type	序号 No.	课程编码 Course number	全校统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
公共学位课 Public Course	1	272003	ENGL602312	中国概况 (II) (The Outline of China II)	2	必修 4 credits required
	2	272004	LITE600127	综合汉语 (II) (Comprehensive Chinese II)	2	
专业学位课 Degree Course	1	052004	INFT610105	数字图像处理 (Digital Image Processing)	3	选修至少 4 学分 A minimum of 4 credits required
	2	052067	EELC611205	材料结构与性能关系 (Structure-property Relations of Materials)	2	
	3	052098	AUTO610905	系统优化与调度 (System Optimization and Scheduling)	2	
	4	052099	AUTO611005	现代测控技术与系统 (Modern Measuring Control Technology and Systems)	2	
	5	052120	AUTO711205	估计与滤波 (Estimation and Filtering)	3	
	6	052172	EELC713105	照明和显示芯片技术 (Chip technology for lighting and display)	2	
	7	052177	EELC713605	高分辨电子显微学 (Introduction to Electron Microscopy)	2	

课程类别 Course Type	序号 No.	课程编码 Course number	全校统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
	8	052187	COMP611205	无线网络与移动计算技术 (Wireless Network and Mobile Computing)	2	
	9	052190	EELC611905	电子薄膜材料及应用 (Electronic thin films and applications)	2	
	10	052191	EELC612005	电子材料与器件原理 (Principles of Electronic Materials and Devices)	2	
	11	052216	EELC612105	CMOS 系统电源管理 (Power Management in CMOS System)	2	
	12	052194	EELC612205	半导体器件物理 (Physics of Semiconductor Devices)	2	
	13	052198	INFT610805	优化理论及其在信号处理和通信中的应用 (Optimization theory and its applications in signal processing and communications)	2	
	14	052199	INFT711805	现代通信技术 (Advanced Communication Technology)	2	
	15	052202	AUTO712305	计算认知科学与工程 (Computational Cognitive Science and Engineering)	2	
	16	052203	INFT711905	数字通信原理 (Principle of Digital Communication)	2	
	17	052204	AUTO712405	大数据与深度学习 (Big Data and Deep Learning)	2	
	18	052207	EELC714605	生物光子学导论 (Introduction to Biophotonics)	2	

课程类别 Course Type	序号 No.	课程编码 Course number	全校统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
	19	053174	INFT712305	多天线技术及其应用 (Multi-Antenna Techniques and Their Applications)	2	
	20	052209	EELC714305	柔性电子学 (Flexible Electronics)	2	
	21	052212	COMP712205	生物信息计算与系统 (Bioinformatics: Computational Systems and Digital Health)	2	
	22	051013	EELC714405	微纳光学 (Micro and Nano-optics)	2	
	23	052176	EELC713505	光电技术导论 (Introduction to Optoelectronic Technology)	2	
	24	052117	EELC711305	有机光电子学 (Organic Optoelectronics)	2	
	25	053193	INFT740105	稀疏信号处理及其应用 (Sparse Signal Processing and its Applications)	2	
	26	053194	INFT740205	统计信号处理:基础理论与机器学习方法 (Statistical Signal Processing: Fundamentals and Machine Learning Perspectives)	2	
	27	053191	AUTO740105	信息物理融合系统安全关键技术 (Security in Cyber-Physical Systems)	2	
	28	053190	COMP740105	基于深度学习的自然语言处理 (Natural language processing with deep learning)	2	
	29	053192	EELC740105	高速宽带通讯集成电路设计 (High-Speed Broadband Communication Integrated Circuits Design)	2	

课程类别 Course Type	序号 No.	课程编码 Course number	全校统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
选修课 Elective Course	/	/	/	在学院研究生课程目录中选修 Select from the school's curriculum of graduate courses	≥4	选修至少4学分 A minimum of 4 credits required
必修环节 Compulsory Activities	1	001999	BXHJ800399	学术活动（讲座）博 (Lectures)(Doctoral)	2	必修10学分 10 credits required
	2	001986	BXHJ800499	开题报告（博） (Dissertation proposal)	2	
	3	001994	BXHJ800199	中期考核（博） (Mid-term Assessment)	6	

五、学位论文（Dissertation）

1. 硕士研究生学位论文（Masters Theses）

申请硕士学位需要满足毕业论文的要求。论文选题应源于个人或团队合作的研究项目，具有一定的技术难度，能体现所学知识的综合运用，有足够的工作量。论文研究应体现作者在具体工程应用中的新意，通过解决工程问题，使学生能够将课程学习与实践经验相结合。

A satisfactory thesis is required for applying for a Master's degree. The thesis will be based on an individual or team-working research project in which each student has a defined role and responsibility. The project leading to the thesis enables the students to combine course studies with practical experience to solve engineering problems.

2. 博士研究生学位论文（Doctoral dissertations）

1. 博士生开始论文前要进行认真的文献阅读、分析和生产实际的调研。完成选题报告，按规定填写学位论文选题报告表，并在学科内做选题报告，需取得评议通过。

Before writing the dissertation, the doctoral students should perform literature survey carefully, then complete dissertation proposal and fill in the proposal form accordingly and report the proposal to get it pass the appraisal.

2. 选题应是学科前沿领域课程或对我国经济和社会发展有重要意义的课题。

Research topic should be cutting-edge in the respective research area or important to the economic and social development of the country.

3. 论文由博士生在导师指导或学术群体帮助下独立完成，并根据国家学位条例实施办法的精神进行严格评审和答辩。

The doctoral students should independently write the dissertation under the supervision of their tutor and/or co-supervisors. The dissertation should undergo rigorous reviewing and defense according

to the national degree granting regulations.

4. 博士生学位论文根据《西安交通大学学位授予工作暂行办法》有关规定进行评审和答辩，通过答辩后计60学分。

The doctoral dissertation should be reviewed and orally defended according to the temporary regulation for awarding a degree at Xi'an Jiaotong University.

六、培养环节时间节点（Timeline and milestones）

	课程学习 Course Work	开题报告 Thesis proposal	中期考核 Mid-term Assessment	预答辩 Pre-oral defense reporting	论文答辩 Oral defense of Thesis/Dissertation
硕士 Master programs	第一学年 First year	第二学年 Second year	第三学期或第四学期 Third semester or fourth semester	论文送审之前 Before submitting the thesis	第六学期 Sixth semester
博士 Doctoral programs	第一学年 First year	第二学年 Second year	第三学期或第四学期 Third semester or fourth semester	论文送审审批之前 Before submitting the thesis for examination and approval	论文送审结果为同意答辩者可申请答辩 Those whose thesis is approved of defense can apply for the thesis/dissertation defense

电气工程学院

School of Electrical Engineering

电气工程学院

School of Electrical Engineering

电气工程类国际研究生培养方案

International Graduate Programs in Electrical Engineering

一、培养目标 (Program objectives)

本学科培养的硕士研究生应满足以下要求:

在电气工程学科领域内掌握坚实宽广的基础理论和系统深入的专门知识;熟悉所从事的研究方向及相近研究方向的科学技术发展动向。

The Masters Programs help the students to gain knowledge and skills in a discipline of electrical engineering that matches their interests and to build solid foundation for a successful career as a professional engineer in a wide variety of industrial or academic fields.

Through the programs, Master's degree candidates are expected to fulfill the following:

1. 使硕士研究生在电气工程学科领域内掌握坚实而宽广的理论基础和系统深入的专门知识

Build a solid and broad theoretical basis in electric engineering and obtain systematic specialized knowledge in the discipline;

2. 在本学科范围内具有独立从事科学研究工作的能力

Be able to conduct science and technology research independently in the discipline of electric and engineering;

3. 学位论文应在导师的指导下,由研究生本人独立完成。论文应有较强的系统性和完整性,应在电工学科的基础理论和专门技术上做出创造性成果

Submit a thesis that Master's degree candidates research and write independently with guidance from the tutor. Note that the thesis must be complete in structure, systematic in contents, prominent in presenting the innovative research outcomes in basic theory and specialized technology of the discipline of electrotechnics.

本学科培养的博士研究生应满足以下要求:

PhD candidates are expected to accomplish the following objectives after the they learn at their respective programs:

1. 在电气工程学科领域内掌握坚实宽广的基础理论和系统深入的专门知识;熟悉所从事研究方向及相近研究方向的科学技术发展动向。

Build a solid and broad theoretical basis in electric engineering and obtain systematic specialized knowledge in the discipline; understand the development trends in science and technology in the area of the research undertaken and the related research areas.

2. 在电气工程学科领域内具有独立从事科学研究工作的能力;具有实事求是、科学严谨的治学态度和工作作风。

Be able to conduct science and technology research independently in the discipline of electric and

engineering; develop a scientific, rigorous, and down-to-earth academic attitude and work style.

3. 具有独立从事科学研究工作的能力;

Have the capability to do the research independently.

4. 学位论文应在导师的指导下,由研究生本人独立完成。论文应有较强的系统性和完整性,应在电工学科的基础理论和专门技术上做出创造性成果

Submit a dissertation that PhD candidates must research and write independently with guidance from the tutor. Note that the thesis must be complete in structure, systematic in contents, prominent in presenting the innovative research outcomes in basic theory and specialized technology of the discipline of electrotechnics.

二、研究方向 (Research fields)

电气工程一级学科下设有五个二级学科:

For the first level discipline electric engineering, there are 5 second level disciplines listed below:

1. 电机与电器 Electric Machinery and Electric Apparatus

2. 电力系统及其自动化 Power System and its Automation

3. 高电压绝缘技术 High Voltage and Insulation Technology

4. 电力电子与电力传动 Power Electronics and Power Transmission

5. 电工理论与新技术 Electrical Theory and New Technology

三、学习年限 (Length of programs)

国际硕士研究生学习年限一般为2年,国际博士研究生学习年限一般为3-5年,经批准可适当延长,延长时间不超过1年。

The length of Masters' programs is 2 years, and that of doctoral programs is 3 to 5 years. Prolongation (no more than one year) has to be approved by the university authority.

四、培养方式 (Program overview)

所有的留学生课程都采用英文授课。外国留学生的培养方式采取导师负责制,导师根据留学生的具体情况以及个人兴趣在入学后的第一学期内制定培养计划,培养计划应包含课程学习、必修环节、科研工作、论文撰写及答辩等。

All the courses for international students are taught in English. The training mode adopts supervisor responsibility system. According to the students' Specific situations and personal interests, their supervisor will make a training plan for them in the first semester. The training plan includes courses to study, compulsory activities, research work, dissertation writing and oral defense or their dissertation.

五、课程学习 (Course work)

(一) 国际硕士研究生 (Masters Programs)

• 电气工程学术学位硕士生的课程学习应至少取得24学分,包括:公共课(汉语(I)2学分、中国概况(I)2学分)4学分、专业学位课至少16学分,选修课至少4学分。必修环节包括:学术活动(讲座)1学分、中期考核3学分。新港报告纳入国际留学生选修课,学生听够20场讲

座后可记 2 学分。

The course studies in the academic Masters programs in Electrical Engineering consist of at least 24 credits. Required courses include *Comprehensive Chinese I* (2 credits), *The Outline of China I* (2 credits), degree courses (no less than 16 credits), and elective courses (no less than 4 credits). Other compulsory activities include: academic lectures (Masters) (1 credit) and mid-term assessment (3 credits). Innovation Harbour Lectures are included in elective courses for international students, 2 credits will be granted after attending 20 Lectures.

国际硕士研究生课程设置和学分要求

Curriculum Design and Credit Requirements of Masters Programs

课程类型 Course Type	序号 No.	课程编码 Course number	统一编码 Course Code	课程名称 Course Name	学分 Credit	备注 Notes
公共学位课 Public Course	1	272003	LITE610112	中国概况 (I) The Outline of China I	2	必修 4 学分 4 credits required
	2	272004	LITE610227	综合汉语 (I) (Comprehensive Chinese I)	2	
专业学位课 Degree Course	3	042126	EELC640104	Control System & Application of Microcomputer	2	至少 16 学分 A minimum of 16 credits required
	4	042092	ELEC640204	Power Electronics	3	
	5	042093	ELEC640304	Modern Control Engineering	3	
	6	042063	ELEC810204	Power Semiconductor Devices and Application Criteria	2	
	7	042038	ELEC712304	Modeling and Control of High-Frequency Power Electronic Circuits	3	
	8	042102	ELEC713904	Analysis and Simulation for Power System Transients	3	
	9	042097	ELEC640604	Design of Power Electronic Equipment	2	
	10	042100	ELEC713804	Renewable Energy and Smart Grid	2	

课程类型 Course Type	序号 No.	课程编码 Course number	统一编码 Course Code	课程名称 Course Name	学分 Credit	备注 Notes
	11	042105	ELEC714004	Electromagnetic Compatibility	2	
	12	042110	ELEC714604	Power System Communications	3	
	13	042112	ELEC715004	Optimization Methods and Its Applications in Power Systems	2	
	14	042113	ELEC714804	Electric Power System Reliability Evaluation	2	
	15	043007	ELEC715404	Smart High Voltage Dielectrics Engineering- Fusion of Dielectric Materials Science with Physics and Chemistry	2	
	16	042109	ELEC714504	Scientific Writing	1	
	17	043076	ELEC740404	Advanced Progress In High Voltage And High Current	2	
选修课 Elective Course		开课目录中的任何研究生课程 Any graduate course(s) offered in the university				至少 4 学分 A minimum of 4 credits required
必修环节 Compulsory Activities	1	001997	BXHJ600399	学术活动(讲座)(硕) (Lectures) (Master)	1	必修 4 学分 4 credits required
	2	001983	BXHJ600799	中期考核 (Mid-term Assessment)	3	

(二) 国际博士研究生(Doctoral Programs)

•学术学位博士生课程学习应至少取得 12 学分，包括：公共课（汉语（II）2 学分、中国概况（II）2 学分）4 学分、专业学位课至少 4 学分，选修课至少 4 学分。新港报告纳入国际留学生选修课，学生听够 20 场讲座后可记 2 学分。

The course work of the academic doctoral programs consists of at least 12 credits. Required courses include *Comprehensive Chinese II* (2 credits), *The Outline of China II* (2 credits), degree courses (no less than 4 credits), and elective courses (no less than 4 credits). Innovation Harbour Lectures are included in elective courses for international students, 2 credits will be granted after attending 20

Lectures.

必修环节包括：学术活动（讲座）2 学分、开题报告 2 学分、中期考核 6 学分。

Compulsory activities include academic lectures (Doctoral) (2 credits), dissertation proposal (2 credits), and mid-term assessment (6 credits).

国际博士研究生课程设计和学分要求

Curriculum Design and Credit Requirements of Doctoral Programs

课程类型 Course Type	序号 No.	课程编码 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
公共学位课 Public Course	1	272003	ENGL602312	中国概况（Ⅱ） （The Outline of China II）	2	必修 4 学分 4 credits required
	2	272004	LITE600127	综合汉语（Ⅱ） （Comprehensive Chinese II）	2	
专业学位课 Degree Course	1	042126	EELC640104	Control System & Application of Microcomputer	3	至少修 4 学分 A minimum of 4 credits required
	2	042092	ELEC640204	Power Electronics	3	
	3	042093	ELEC640304	Modern Control Engineering	3	
	4	042063	ELEC810204	Power Semiconductor Devices and Application Criteria	2	
	5	042038	ELEC712304	Modeling and Control of High-Frequency Power Electronic Circuits	3	
	6	042102	ELEC713904	Analysis and Simulation for Power System Transients	3	
	7	042097	ELEC640604	Design of Power Electronic Equipment	2	
	8	042100	ELEC713804	Renewable Energy and Smart Grid	2	
	9	042110	ELEC714604	Power System Communications	3	
	10	042109	ELEC714504	Scientific Writing	1	
	11	042105	ELEC714004	Electromagnetic Compatibility	2	
	12	043077	ELEC740504	Power Quality Issues and	2	

课程类型 Course Type	序号 No.	课程编码 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
				Control Method		至少 4 学分 A minimum of 4 credits required
	13	043079	ELEC740704	Fundamentals of Instrumentation & Process Control	2	
	14	043076	ELEC740404	Advanced Progress In High Voltage And High Current	2	
	15	043080	ELEC640704	Advanced Sensor Technology	2	
	16	042041	ELEC712604	Modelling, analysis and control of Three-phase High Frequency Power Electronic System	2	
选修课 Elective Course		开课目录中的任何研究生课程 Any graduate course(s) offered in the university				必修 10 学分 10 credits required
必修环节 Compulsory Activities	1	001999	BXHJ800399	学术活动(讲座) (博) (Lectures)(Doctoral)	2	
	2	001986	BXHJ800499	开题报告 (dissertation proposal)	2	
	3	001994	BXHJ800199	中期考核 (Mid-term Assessment)	6	

六、培养环节（Compulsory Activities）

1. 学术活动（讲座）（Lectures）

•国际硕士研究生学术活动（讲座）分为必听讲座和选听讲座。必听讲座包括“科学道德与学风建设”1 次、“职业生涯发展与规划导论”1 次；选听讲座包括与学科紧密相关的“学科前沿系列专题讲座”（由各二级学科组织若干教授对本学科前沿知识进行讲座，每个讲座由 5 个以上讲座组成）一个系列和在全校范围内选听“学术讲座”1 次，完成全部 8 个讲座后记 1 学分。

•Masters students are required to attend 8 lectures, including 2 compulsory lectures (one on Scientific Morality and Construction of Study Style, and one on Introduction to Career Development and Planning), 5-lectures in a series regarding discipline-specific frontiers information (organized by

respective individual schools), and 1 elective within the university. Students will obtain 1 credit with full attendance to 8 lectures.

•国际博士研究生学术活动（讲座）分为必听讲座和选听讲座。必听讲座为“科学道德与学风建设”；选听讲座包括与学科紧密相关的“学科前沿系列专题讲座”（由各二级学科组织若干教授对本学科前沿知识进行讲座，每个讲座由5个以上讲座组成）一个系列和在全校范围内选听“学术讲座”1次，自己公开讲座1次，完成后记2学分。

•Doctoral students are required to attend 7 lectures, including one compulsory lecture (one on Scientific Morality and Construction of Study Style), 5-lectures in a series regarding discipline-specific frontiers information (organized by respective individual schools), and 1 elective within the university. In addition, they are also required to give one lecture. Students will obtain 2 credits by completing all the lecture activities.

2. 开题报告 (Thesis / Dissertation Proposal)

博士生开题报告由各系所在第三学期组织完成，中期考核前需形成书面开题报告。

Dissertation proposal must be organized by the respective department for each doctoral candidate during the third semester. A written dissertation proposal shall be completed before mid-term assessment.

3. 中期考核 (Mid-term Assessment)

硕士研究生需在第三学期完成中期考核，考核方式为提交纸质版中期考核报告并完成答辩。

Mid-term assessment will be organized during the third semester by respective department. A written mid-term assessment report shall be submitted and oral defence of the proposal shall be organized as well by the respective department.

博士研究生需在第四学期完成中期考核，考核合格者方可继续完成后续研究学习，考核不合格者可申请在下一学期完成补考，中期补考不合格的学生将终止学制。

Mid-term assessment of PhD candidates will be organized in the 4th semester, the candidates who pass this assessment will be allowed to continue with their doctoral programs; and those who fail can attend the makeup mid-term assessment in the following semester. The ones who fail the makeup mid-term assessment will no longer be made to terminate their PhD programs.

4. 预答辩 (Pre-oral defense Reporting)

硕士研究生预答辩由各系所组织完成。学术论文须通过盲审后方可组织预答辩。

Pre-oral defence for Masters graduate students will be organized by respective department. Students must pass the blind reviewing of the dissertation before proceeding to the pre-oral defence.

博士研究生预答辩由各系所组织完成，预答辩委员会须由三位委员（博士生导师）组成。

Pre-oral defence for PhD graduate students will be organized by respective department. Pre-oral defence committee consists of three members (qualified for supervising doctoral candidate).

5. 学位论文 (Dissertation)

留学研究生完成学位论文及培养计划规定的内容后，可进行学位论文送审评阅。学位论文应在指导教师指导下，由留学研究生本人独立完成；硕士学位论文工作的时间一般应有一个学年左右。博士学位论文的工作时间一般应有2个学年左右。学位论文可用中文或英文撰写。中文撰写格式应符合《西安交通大学研究生学位论文规范》的要求，英文撰写格式应符合国际惯例，应有中文摘要。用于学位申请的学术论文，是指申请人为第一作者或第二作者（本人为第二作者时，

第一作者应为其导师）、且西安交通大学为第一署名单位的学术论文。

After completion of dissertation and the requirements of the program, the postgraduate students can submit his or her academic dissertation for reviewing. The academic dissertation should be finished by the student him/herself under the guidance of the academic supervisor. The duration of time for a Mater's dissertation is around one academic year; and that for a PhD dissertation is around two academic years. Student dissertations can be written either in Chinese or in English. For the dissertations in Chinese, they must accord with the rules and regulations specified in *Xi'an Jiaotong University Graduate Student Dissertation Standard*; but for the dissertations in English, they must accord with the international conventions and have Chinese abstract. For a student, the research articles contributing to the rewarding of a degree must be first authored or second authored by the student (when the student is the second author, the first author must be his or her academic supervisor) and Xi'an Jiaotong University should be the first authored institution.

留学研究生提交学位论文送审评阅申请，经学院、学校两级审批通过后，采用常规评审。评审专家同意答辩后，留学研究生可提出学位论文答辩申请，并按照程序进行答辩。

International graduate students are required to submit the application for reviewing their academic dissertation. After the approvals of the academic school and the Graduate School, routine approving can be conducted. After the reviewers confirm that the dissertation has satisfied the requirements, the student can file an application for oral defence for their dissertation. After the student defends his/her dissertation successfully, he/she can apply for granting a degree.

七、培养环节时间节点(Timelines and milestones)

	课程学习 Course Work	开题报告 Thesis/Dissertation Proposal	中期考核 Mid-term Assessment	预答辩 Pre-oral defence	论文答辩 Thesis/Dissertation oral Defense
硕士 Masters program	第二学期结束前 First two semesters	/	第三学期结束 At the end of third semester	第四学期 Fourth semester	第四学期 Fourth semester
博士 (Doctoral program)	第二学年结束前 First two years	第三学期 Third semester	第四学期结束 End of fourth semester	最后一个学期 Last semester	最后一个学期 Last semester

法学院

School of Law

法学院

School of Law

法学类国际研究生中英文培养方案

International Graduate Programs in Law

一、培养目标 (Program objectives)

(一) 硕士研究生(Master programs)

本专业旨在帮助学生系统的学习中国法与国际法，尤其在商法与经济法领域专业知识得同时，深入了解中国社会和文化，从而培养其熟练处理具体法律问题的能力和技巧。

The program is designed to help students systematically study Chinese and international law with a focus on business and economic laws, and gain deep insights in Chinese society and culture, so as to develop their abilities and skills to professionally handle practical legal problems.

(二) 博士研究生(Doctoral Programs)

本专业致力于培养学生遵纪守法，具有强烈的事业心和责任感，系统、深入地掌握本学科的基础理论和专业知识，掌握本学科的前沿研究动态与最新成果，具有较强的独立从事法学交叉学科研究、法律治理实务工作的能力。掌握一门外语并能熟练阅读本专业的外文资料 and 进行本学科的学术交流；能胜任与本学科相关的教学、科研和法律实际部门相关工作的高层次政法人才。

This program is committed to cultivating students who will act in compliance with the laws and regulations, develop a strong sense of professionalism and responsibility, systematically and thoroughly grasp the basic theory and professional knowledge of this discipline, keep up with the latest research trends and achievements of this discipline, and have a strong independent engagement in the research of interdisciplinary subjects of law and the ability in practical work of law and governance. This program also requires students to master a foreign language and be proficient in reading materials in a foreign language and carrying out academic exchanges of the subject; to cultivate high-level political and legal talents who are competent for the teaching, scientific research and practical work of legal departments related to this program.

二、研究方向 (Research fields)

(一) 硕士研究生(Masters programs)

中国法与国际商法

Chinese and International Business Law

(二) 博士研究生(Doctoral Programs)

1. 国际法与全球经济治理

International Law and Global Economic Governance

2. 国际法与跨国投融资法律治理

International Law and Legal Governance of Transnational Investment and Financing

3. 国际法、国际关系与全球治理

International Law, International Relations and Global Governance

4. 信息安全法与网络社会治理

Information Security Law and Social Governance of Network

5. 英美法与国际商事法律治理

British and American Laws and International Commercial Law and Governance

6. 知识产权与科技社会法律治理

Intellectual Property Rights and Legal Governance of Science and Technology Society

7. 民商事法律与社会治理

Civil and Commercial Law and Social Governance

8. 法律治理学与国家治理现代化

Law and Governance and the Modernization of State Governance

9. 国际经济法与全球经济治理

International Economic Law and Global Economic Governance

三、学习年限 (Length of programs)

•国际硕士研究生学习年限一般为2年，国际博士研究生学习年限一般为3-5年，经批准可适当延长，延长时间不超过1年。

The length of Masters programs is 2 years, and that of doctoral programs is 3 to 5 years. Prolongation (no more than one year) has to be approved by the university authority.

四、培养方式 (Program overview)

(一) 硕士研究生(Master programs)

中国法与国际商法法律硕士项目是西安交通大学法学院精心打造的国际留学生项目。参与本项目的外国留学生和法律专业人士将在中国的中心城市—西安—学习中国法与国际商法、经济法和法律过程。本项目为期两年，包含了课程学习、自主研究、论文写作以及学术讲座四部分。所有的课程均实行全英文教学，授课教师均为我院教师团队中的精选师资以及在各该领域具有丰富经验的顶级专家。留学生入学后将在专门指定的导师的指导下独立完成科研项目和撰写学位论文，鼓励学生积极从事论文写作并予以发表。

Master of Laws in Chinese and International Business Law (LLM-CIBL) program is the flagship program of XJTU Law School for international graduates. It offers law students and legal professionals from abroad a unique opportunity to study Chinese and international business laws, economic laws and legal procedures at Xi'an, one of the national central cities of China. The program lasts for two years and includes four sections: taught courses, independent research, thesis writing and lecture series. All courses are taught in English by selected faculty members at the Law School and other leading experts in legal practices. Every student will be assigned an academic supervisor to carry on his/her independent research and LL.M. thesis writing. Students are encouraged to write publishable dissertations.

(二) 博士研究生(Doctoral Programs)

1. 实行导师全面负责与充分发挥学术集体作用相结合的培养方式。博士生入学后，在导师的指导下制定培养计划并监督实施。

These programs are to combine the overall responsibility of tutors with a full play of the collective academic guidance. After registration, the doctoral candidates shall work out the training plans, implemented under the guidance of their supervisor.

2. 学位必修课学分一般在第一学年内完成，其他课程学分可在第二学年内完成。学位必修课一般采用讲座或研讨形式授课。注重学生的个性化培养和创新能力的培养，以提高学生的综合素质和培养质量。

Required courses are usually completed in the first academic year, while credits for other courses can be studied for in the second academic year. Required courses are usually taught in the form of lectures or seminars. These programs emphasize the cultivation of students' personalities and innovative ability so as to improve students' comprehensive quality and cultivation quality.

3. 由导师负责指导，积极申请各种学术研究基金，参加社会科学研究活动。参加学院各种学术活动与公益活动（包括政治理论学习、专业学术活动、公益活动）。每位博士生在第二学年结束之前至少主持一次自办的学术研讨会，并至少作一次学术讲座（在职博士生可推迟一至两个学期）。

Guided by the tutor, candidates are supposed to actively apply for various academic research funds and participate in social science research activities. Students should participate in various academic activities and public welfare activities (including political theory study, professional academic activities, and public welfare activities). Each doctoral candidate is required to preside over at least one self-organized academic seminar and delivers at least one academic lecture before the end of the second academic year (part-time doctoral candidates may postpone one or two semesters to deliver the lectures).

4. 按照研究生院规定实施中期考核制。第四学期由“一级学科研究生培养与学科建设指导小组”组织一次中期考核。中期考核的内容包括：学科基础综合考试、研究进展和综合能力三个方面。考核通过者，进入下一阶段培养；不通过者，可以申请再次考核，再次考核不通过者，予以分流处理。

The mid-term assessment system shall be implemented in line with the requirements of graduate schools. In the fourth semester, a mid-term assessment will be organized by the "First-level Discipline Guidance Group for Graduate Cultivation and Discipline Construction". The content of mid-term assessment includes the following three aspects: comprehensive basic knowledge examination, research progress report and comprehensive abilities assessment. Those who pass the assessment shall continue with their program and start the next stage of cultivation; those who fail may apply re-take the mid-term assessment organized next time, and those who fail the re-assessment will be made to terminate the program.

五、课程学习(Course work)

(一) 硕士研究生(Master's programs)

本项目每个学生至少取得 26 学分，包括：公共课（汉语（I）2 学分、中国概况（I）2 学

分）4 学分、专业学位课 18 学分，选修课 4 学分。新港报告纳入国际留学生选修课，学生听够 20 场讲座后可记 2 学分。

The courses required to complete the program add up to at least 26 credits. Required courses include *Comprehensive Chinese I* (2 credits), *The Outline of China I* (2 credits), degree courses (no less than 18 credits), and elective courses (4 credits). Innovation Harbour Lectures are included in elective courses for international students, 2 credits will be granted after attending 20 Lectures.

国际硕士研究生课程设置和学分要求

Curriculum Design and Credit Requirements for the LLM-CIBL Program

课程类型 Course Type	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
公共学位课 Public Course	1	272003	LITE610112	中国概况（I） The Outline of China I	2	必修 4 学分 4 credits required
	2	272004	LITE610227	综合汉语（I） Comprehensive Chinese I	2	
专业学位课 Degree Course	1	243013	LAWS741524	中国宪法与司法制度 Chinese Constitution and Judicial System	2	必修 18 学分 18 credits required
	2	242270	LAWS740224	中国民法 Chinese Civil Law	2	
	3	242271	LAWS740324	中国民事诉讼法 Chinese Civil Procedure	2	
	4	243014	LAWS741624	中国商法与经济法 Chinese Commercial Law and Economic Law	2	
	5	242275	LAWS740724	中国知识产权法 Chinese Intellectual Property Law	2	
	6	242295	LAWS741924	国际法和比较法研讨课 International Law and Comparative Law Seminar	2	
	7	242278	LAWS741024	国际公法 Public International Law	2	
	8	243015	LAWS741724	国际贸易法 International Trade Law	2	

课程类型 Course Type	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
	9	243016	LAWS741824	国际投资法 International Investment Law	2	
选修课 Elective Course	1	243020	LAWS742024	文化遗产法前沿问题研究 Current Issues of Cultural Heritage Law	2	选修 4 学分 4credits required
	2	243021	LAWS742124	国际商事仲裁法 International Commercial Arbitration law	2	
	3	242279	LAWS741124	国际私法 Private International Law	2	
	4	242229	LAWS712324	宪法学专题研究 Special Topics on Constitution	2	
	5	102169	LAWS610524	国际投资法专题 Special Topics on International Investment Law	2	
	6	143006	MLMD640114	“一带一路”与中国开放格局研究 The OBOR Initiative and the open policy of China	2	
	7	143007	MLMD640214	中国改革开放专题研究 A Study of China's Reform and Opening-up	2	
必修环节 Compulsory Activities	1	001997	BXHJ600399	学术活动(讲座)(硕) Academic Activities (Lectures) (Masters)	1	必修 4 学分 4 credits required
	2	001983	BXHJ600799	中期考核 Mid-term Assessment	3	

(二) 博士研究生(Doctoral Programs)

•学术学位博士生课程学习应至少取得 12 学分，包括：公共课（汉语（II）2 学分、中国概况（II）2 学分）4 学分、专业学位课 4 学分，选修课 4 学分。新港报告纳入国际留学生选修课，学生听够 20 场讲座后可记 2 学分。

The doctoral programs require at least 12 credits to graduate. Required courses include *Comprehensive Chinese II* (2 credits), *The Outline of China II*(2 credits), degree courses 4 credits, and elective courses 4 credits. Innovation Harbour Lectures are included in elective courses for international students, 2 credits will be granted after attending 20 Lectures.

必修环节包括：学术活动（讲座）2 学分、开题报告 2 学分、中期考核 6 学分。

Other compulsory activities include academic activities (lectures) (2 credits), dissertation proposal (2 credits), and mid-term assessment (6 credits).

国际博士研究生课程设计和学分要求

Curriculum Design and Credit Requirements of the Doctoral Program

课程类型 Course Type	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
公共学位课 Public Course	1	272003	ENGL602312	中国概况（II） The Outline of China II	2	必修 4 学分 4 credits required
	2	272004	LITE600127	综合汉语（II） Comprehensive Chinese II	2	
专业学位课 (Degree Course)	1	243014	LAWS741624	中国商法与经济法 Chinese Commercial Law and Economic Law	2	必修 4 学分 4 credits required
	2	242295	LAWS741924	国际法和比较法研讨会 International Law and Comparative Law Seminar	2	
选修课 (Elective Course)	1	242270	LAWS740224	中国民法 Chinese Civil Law	2	选修 4 学分 at least 4 credits required
	2	243015	LAWS741724	国际贸易法 International Trade Law	2	
	3	243016	LAWS741824	国际投资法 International Investment Law	2	

课程类型 Course Type	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
必修环节 (Compulsory Activity)	1	001999	BXHJ800399	学术活动(讲座)(博) Academic Activities (Lectures)(Doctoral)	2	必修 10 学分 10credits required
	2	001986	BXHJ800499	开题报告 Dissertation Proposal	2	
	3	001994	BXHJ800199	中期考核 (Mid-term Assessment)	6	

六、培养环节 (Compulsory Activities)

(一) 硕士

1. 学术活动 (讲座) Academic Activities (Lectures)

国际硕士研究生学术活动 (讲座) 分为必听讲座和选听讲座。必听讲座包括“科学道德与学风建设”1 次、“职业生涯发展与规划导论”1 次；选听讲座包括与学科紧密相关的“学科前沿系列专题讲座” (由各二级学科组织若干教授对本学科前沿知识进行讲座，每个讲座由 5 个以上讲座组成) 一个系列和在全校范围内选听“学术讲座”1 次，完成全部 8 个讲座后记 1 学分。

Masters graduate students are required to attend 8 lectures, including 2 compulsory ones (one on Scientific Morality and Research Ethics, and one on Introduction to Career Development and Planning), 5 lectures in a series regarding discipline-specific lectures on frontier developments (organized by respective individual schools), and one of the elective lectures organized by the University. Students will obtain 1 credit with full attendance to 8 lectures.

2. 开题报告 (Thesis Proposal Reporting)

研究生入学后应在导师指导下，查阅文献资料，了解学科现状和发展，尽早确定学位论文方向，制定论文工作计划，做好开题报告准备。开题报告包括：文献综述、选题背景及意义、研究基础、研究内容、工作难点及特色、预期成果以及可能产生的创新点等。硕士生在参加论文选题报告会前应填写《硕士研究生学位论文选题报告》并由导师签署意见，开题报告内容不少于 3000 字。

After Masters graduate students get registered, they should prepare for selecting their thesis topic under the guidance of their supervisor by reading related literature, understanding the status quo and developments of the discipline, determining the research area of their thesis research and formulating their thesis plans. The submitted thesis proposal should include sections of literature review, research background and significance, research basis and research content, targeted research difficulties and characteristics, expected results and possible innovations. The Masters graduate students should fill up the form of *Master's Student Thesis Proposal* and get it signed and evaluated by their supervisor before

participating in the thesis proposal reporting. The thesis proposal should be at least 3,000 words long.

开题报告由院系组织，一般应在第二学期期末前完成。开题报告应以学术活动的形式在学院内公开进行，由导师及导师团队成员为主体组成的考核小组 (至少 3 名) 进行评审。

The Thesis Proposal Reporting Meeting is organized by the respective department and school generally before the end of the second semester. It should be conducted in the form of an academic activity, where the assessment team (no less than three members) comprised of the supervisor and supervision group will assess whether the proposal meets the corresponding requirements.

研究生以答辩的形式向与会专家汇报选题报告的主要内容，听取专家的修改意见。评审专家根据选题报告的情况给出评审结果，评审结果分“通过”、“修改后通过”或“不通过”三种情况。凡是获得“通过”的研究生可以按照选题报告研究内容开展研究工作；凡是“修改后通过”的研究生需按照专家意见修改后开展研究工作；凡是“不通过”的研究生必须重新开展选题研究，三个月内再次申请进行选题报告。

The students will introduce the main contents of their thesis proposal to the assessment team in a form of oral defense, and collects their suggestions on improvement. Accordingly, the assessment experts will judge the quality of the thesis proposal by three levels: “pass”, “pass after improvement” or “failure to pass”. Those who are granted a “pass” will continue with their research; those who are granted a “pass after improvement” can continue with their research after they improve it first in accordance with the experts’ suggestions; and those who are granted a “failure to pass” must re-take thesis proposal defense within three months.

经评审通过的开题报告，须以书面形式交学院研究生管理部门备案。在学期间转专业、转导师以及在论文研究工作过程中，论文课题有重大变动的研究生，应依据现导师的意见，决定是否重新做开题报告。

Reports approved by the thesis proposal assessment team must be submitted in a written form to graduate student management department for filing. If the graduate students change their major, supervisor, or make a significant change to their research topic during the period of this program, the decision on whether they should have a new thesis proposal assessment should be made on the basis of their current supervisor’s opinions.

3. 中期考核 (Mid-term Assessment)

研究生在通过开题报告后，在导师的指导下开展论文工作，中期考核是对研究生入学后的学习与科研状况的全面检查，着重考核研究生业务表现与论文工作进展情况。硕士研究生中期考核的主要内容包括：论文研究内容简介、研究进展情况和下一步的工作计划等。研究生在参加中期考核前，需向学院提交由导师签字中期进展报告、已完成论文及其他相关书面材料，中期进展报告内容不少于 8000 字，论文要求完成全部工作量的一半以上。

After the students get their thesis proposal approved, they can carry out thesis research under the guidance of their supervisor. The Mid-term assessment is a comprehensive assessment of the course work and research work of the graduate students, which places stress on assessing their academic performance and thesis research progress. The main assessment contents include several sections: introduction to thesis research contents, research progress and work plans for the next step. Before the graduate students participate in the Mid-term assessment, they should submit to the school corresponding management office a Mid-term Thesis Progress Report signed by their supervisor, along

with finished parts of their thesis and other written materials. The content of the Mid-term Thesis Progress Report should be at least 8,000 words long and the already finished parts should be more than half of the whole thesis research workload.

中期考核由院系组织，一般安排在第三学期期末。中期考核应以学术活动的形式在学院内公开进行，考核小组由 5-7 名本学科或相关学科教师组成（硕士考核小组专家须有硕士生指导资格，博士考核小组专家须具有博士生指导资格）。专家主要依据研究生的论文课题进展情况进行考核，必要时可参阅其课程学习和选题报告情况进行综合评议。

The Mid-term Assessment meeting is organized by the respective school generally at the end of the third semester, which should be conducted in public and in the form of an academic activity where 5-7 teachers in this discipline or related disciplines will assess the thesis proposal (the assessment team members should have qualification to supervise master students). The assessment team will evaluate the thesis progress of the students; and if necessary, they can make a comprehensive assessment based on the course performance and thesis proposal assessments of the students.

硕士研究生以答辩的形式向与会专家汇报选题报告的主要内容，听取专家的修改意见。硕士研究生考核结果分三种情况：优秀、合格、不合格。对于考核“不合格”的研究生三个月内再次申请进行补考核，补考核仍未通过者延迟毕业。

The Masters candidates introduce the main contents of their mid-term assessment report in a form of an oral defense. The assessment will be evaluated by three levels: excellent, qualified and disqualified. Those whose mid-term assessment report is labeled as “disqualified” should re-take it within three months; and if it is still judged as “disqualified”, they will be delayed for graduation.

研究生应按时参加中期考核，如有特殊情况需要延期参加中期考核，经本人申请并获得批准后参加补考核，具体时间由学院确定。中期考核通过后，硕士记 3 学分。中期考核所有评审材料，须在学院研究生管理部门备案。

The students should participate in Mid-term assessment according to the time planned. In a special circumstance occurs where they have to delay the Mid-term assessment, they should apply for approval and participate in the make-up assessment. The time for holding this make-up assessment will be determined by the School. After the Masters graduate students pass the Mid-term assessment, they will obtain 3 credits. And all materials for the Mid-term assessment should be filed in the graduate student management department of the respective School.

4. 预答辩 (Pre-Defense)

研究生完成学位论文后须由学院统一安排预答辩。在预答辩中，须严格审查论文选题的意义，学位论文是否有独立见解，学位论文的工作量。

After the students completed their thesis, they will take part in the pre-oral defense reporting, organized by the respective school. In this activity, significance of the topic, whether the thesis research has had independent insight, and whether the workload of the thesis research has been adequate.

硕士一般统一安排在第四学期初进行。预答辩以学术活动的形式在学院内公开进行，考核小组要求与正式答辩一致。

The Pre-oral defense of the thesis is generally organized at the beginning of the fourth semester, by the School in the form of a public academic lecture and the requirements for evaluating the quality of the

thesis should accord with the formal final oral defense of their thesis.

对预答辩中提出的问题，研究生应认真修改与补充，经主管院长同意报院长审批后，方可进入论文评阅、答辩环节。对问题较多的学位论文，研究生应修改后重新进行预答辩。

Regarding the questions raised in the Pre-oral defense, students must improve carefully. After obtaining approvals from the deputy dean, and dean, students can move to the stage of thesis reviewing and finally thesis defense. For those theses with too many problems, the students should improve and retake the Pre-oral defense of the thesis again.

5. 正式答辩 (Oral Thesis Defense)

硕士学位论文的基本要求如下：

Basic requirements of Master's thesis:

(一) 应在指导教师指导下，由研究生本人独立完成；

Students complete the academic thesis independently under the guidance of their supervisor;

(二) 论文有自己的新见解，并力求在理论上或实际上，对社会主义建设具有一定的意义；

The academic thesis must have innovative insights and make contributions to the socialist construction theoretically or practically;

(三) 为保证论文质量，论文工作必须有一定的工作量，在论文题目确定后，用于硕士学位论文工作的时间一般应有 1 个学年左右。

To guarantee the quality of theses, the workload should be adequate. After the thesis topic is decided, the length of thesis work time must be around one academic year.

学位申请人通过硕士学位的课程考试和论文答辩，成绩合格，达到下述水平者，授予硕士学位：

The candidates will be awarded the Master's degree when they meet the following requirements: having finished all the course work, passed the oral defense of the thesis, and have demonstrated the following performance:

(一) 掌握马克思主义的基本理论；

Having mastered the basic theory of Marxism;

(二) 在本门学科上掌握坚实的基础理论和系统的专门知识；

Having mastered basic theories and systematic knowledge of the major discipline;

(三) 具有从事科学研究工作或独立担负专门技术工作的能力；

Having acquired the abilities to undertake scientific research or specialized technical works;

(四) 比较熟悉地运用一种外国语阅读本专业外文资料，并能撰写论文摘要，具有初步的听说能力；

Having the competence in reading the literature of the discipline undertaken in a foreign language, drafting the abstract in a foreign language and speaking and listening skills of that language;

(五) 对所研究的课题应当有新的见解，具有从事科学研究工作或独立担负专门技术工作的能力。

Having demonstrated that the thesis has original insights on the topic studied, and that the candidate can do research independently or shoulder specialized technical work independently.

(二) 博士研究生(Doctoral Programs)

1. 学术活动(讲座) Academic Activities (Lectures)

国际博士研究生学术活动(讲座)分为必听讲座和选听讲座。必听讲座为“科学道德与学风建设”;选听讲座包括与学科紧密相关的“学科前沿系列专题讲座”(由各二级学科组织若干教授对本学科前沿知识进行讲座,每个讲座由5个以上讲座组成)一个系列和在全校范围内选听“学术讲座”1次,自己公开讲座1次,完成后记2学分。

Academic activities (Lectures) to be attended are divided into compulsory lectures and elective lectures. Compulsory lectures to be attended include one on Scientific Morality and one on Construction of Study Morality. Elective lectures to be attended consist of a series of lectures, including at least 5 lectures in a series regarding discipline-specific frontiers disciplinary progress (organized by respective individual schools), and 1 more lecture within the university. In addition, they are also required to give a lecture. Students will obtain 2 credits by completing the whole series of activities.

2. 开题报告(Thesis Proposal Report)

研究生入学后应在导师指导下,查阅文献资料,了解学科现状和发展,尽早确定学位论文方向,制定论文工作计划,做好开题报告准备。开题报告包括:文献综述、选题背景及意义、研究基础、研究内容、工作难点及特色、预期成果以及可能产生的创新点等。博士生在参加论文选题报告会前应填写《博士研究生学位论文选题报告》并由导师签署意见,开题报告内容不少于5000字。

After registration, under the guidance of their supervisor, the candidates should refer to the literature, understand the current situation and development of the discipline, determine the area of research of their dissertation as soon as possible, formulate the work plan, and prepare the dissertation proposal. The dissertation proposal includes literature review, research background and significance, research basis, research content, challenges to tackle and features, expected results and possible innovations. Doctoral candidates should fill up the "Doctoral Dissertation Proposal signed by the supervisor" before participating in dissertation proposal reporting meeting. The dissertation proposal should be at least 5000 words long.

开题报告由院系组织,博士一般应在第二学年内完成,具体时间由导师或院系决定,但开题报告通过至申请论文答辩时间一般不少于一年。开题报告应以学术活动的形式在学院内公开进行,由导师及导师团队成员为主体组成的考核小组(至少3名)进行评审。开题报告考核小组鼓励吸收有关教师和研究生参加,交叉培养项目以及跨学科的论文选题应聘请相关学科的专家参加。

The dissertation proposal reporting meeting is organized by the respective school and should be completed in the second academic year. The specific time is decided by their supervisor or the respective school, but the time between the approval of the dissertation proposal and the application for final oral defense is usually no less than one year. The dissertation proposal should be conducted publicly, and be evaluated by an assessment team (at least three members) composed of their supervisor and other members of the supervisor's team. The assessment team encourages the participation of relevant teachers and graduate students, proposal conference of cross-discipline dissertation and interdisciplinary dissertation should be attended by experts from relevant disciplines.

研究生以答辩的形式向与会专家汇报选题报告的主要内容,听取专家的修改意见。评审专家

根据选题报告的情况给出评审结果,评审结果分“通过”、“修改后通过”或“不通过”三种情况。凡是获得“通过”的研究生可以按照选题报告研究内容开展研究工作;凡是“修改后通过”的研究生需按照专家意见修改后开展研究工作;凡是“不通过”的研究生必须重新开展选题研究,三个月内再次申请进行选题报告。

The candidates report the main contents of their dissertations to the experts in the form of oral defense, and collect the experts' opinions about their proposal revision. The assessment experts assess it by three levels: "pass", "pass after improvement", or "failure". Those who are granted a "pass" can carry on with their research according to the proposal; those who are granted a "pass after improvement" need to improve it first according to the opinions of the assessment experts, then continue on with the research of their dissertation; those who "fail" the assessment will have to retake the dissertation proposal defense meeting again within three months.

开题报告通过后,博士记2学分。经评审通过的开题报告,须以书面形式交学院研究生管理部门备案。在学期间转专业、转导师以及在论文研究工作过程中,论文课题有重大变动的研究生,应依据导师的意见,决定是否重新做开题报告。

After passing the thesis proposal, the candidates will get 2 credits. The dissertation proposal approved by the assessment team shall be submitted in written form to the Graduate Management office of the School as a record file. In situations where the candidates change the discipline, change the supervisor and significantly change the topic, a new dissertation proposal should be conducted upon the request of their supervisor.

3. 中期考核(Mid-term Assessment)

研究生在通过开题报告后,在导师的指导下开展论文工作,中期考核是对研究生入学后的学习与科研状况的全面检查,着重考核研究生业务表现与论文工作进展情况。博士研究生中期考核的主要内容包括:学科基础综合考试(含学科基础文献集阅读)、研究进展和综合能力三个方面。研究生在参加中期考核前,需向学院提交由导师签字的课程成绩、课题研究进展报告、已完成论文及其他相关书面材料,中期进展报告内容不少于8000字,论文要求完成全部工作量的一半以上。

Candidates will continue to work on their dissertation research under the guidance of their supervisor after their proposal passes the assessment. The mid-term assessment is a comprehensive assessment of the study and scientific research progress of the candidates since they started the graduate program at the university. It mainly focuses on the assessment of their research performance and the progress of their dissertation. The main contents of the mid-term assessment include the following: the comprehensive assessment of basic disciplines (including the basic literature of the discipline), research progress and the comprehensive abilities. Before participating in the mid-term assessment, candidates should submit to the school the course grades signed by their supervisor, research progress report, completed parts of the dissertation and other related written materials. The mid-term progress report contains no less than 8000 words, and they are required to have finished more than half of the total workload of the dissertation by then.

中期考核由院系组织,博士一般安排在第四学期期末进行。中期考核应以学术活动的形式在学院内公开进行,考核小组由5-7名本学科或相关学科教师组成(博士考核小组专家须具有博士生指导资格)。专家主要依据研究生的论文课题进展情况进行考核,必要时可参阅其课程学习和

选题报告情况进行综合评议。

The mid-term assessment is organized by the respective school and department. The mid-term assessment for doctoral candidates is generally scheduled to take place at the end of the fourth semester. The mid-term assessment should be conducted publicly in the form of an academic lecture. The assessment team consists of 5-7 teachers of the discipline or related disciplines (the experts of the doctoral assessment team must have the qualification of doctoral supervisors). Experts give their assessment on the basis of the progress of the dissertation research. When necessary, they can refer to their course grades and thesis proposal reporting for comprehensive evaluation.

博士研究生的中期考核分为两个部分，学科基础综合考试办法详见《法学院博士研究生“学科基础文献集”考核细则》，研究进展和综合能力考核以答辩的形式进行，由专家进行打分。

The mid-term assessment of doctoral candidates is divided into two parts. The method of comprehensive examination of literature reading for basic disciplines is detailed in “Detailed Rules for the Assessment of the PhD Candidates to Read the ‘Collection of the Basic Literature of the Disciplines’ Prepared by the School of Law”. The research progress and comprehensive ability assessment are carried out in the form of oral defense and graded by experts.

研究生应按时参加中期考核，如有特殊情况需要延期参加中期考核，经本人申请并获得批准后参加补考核，具体时间由学院确定。中期考核通过后，博士记6学分。中期考核所有评审材料，须在学院研究生管理部门备案。

Candidates should take part in the mid-term assessment according to the schedule. If unusual situations occur, which requires postponement of the mid-term assessments, they will have to complete it another time after their application for delay is approved. The specific time is determined by the School. After passing the mid-term assessment, the candidates get 6 credits. All evaluation materials for mid-term assessment shall be kept on record at the Graduate Management Office of the School.

4. 预答辩 (Pre-Defense)

研究生完成学位论文后须由学院统一安排预答辩。在预答辩中，须严格审查论文选题的意义，学位论文是否有独立见解，学位论文的工作量。

After the candidates completing their dissertation, the School will arrange the pre-oral defense reporting. In the pre-oral defense reporting, the significance of dissertation topic, the independent findings and the workload of the dissertation should be strictly checked.

博士根据个人学位论文进展程度随时向学院申请预答辩安排。预答辩以学术活动的形式在学院内公开进行，考核小组要求与正式答辩一致。

Candidates submit their application to the School for pre-oral defense reporting arrangement at any time based on the progress of their thesis. Pre-oral defense is conducted publicly in the form of an academic lecture. The requirements of the assessment team are consistent with those who participate in the final oral defense.

对预答辩中提出的问题，研究生应认真修改与补充，经主管院长同意报院长审批后，方可进入论文评阅、答辩环节。对问题较多的学位论文，研究生应修改后重新进行预答辩。

Candidates should carefully revise their dissertation according to the questions raised in the pre-oral defense reporting meeting. Only after the associate dean in charge agrees to submit them to the dean for

approval, can they start the stage of dissertation reviewing and final oral defense. For dissertations with relatively more problems, candidates should revise them and carry out the pre-oral defense reporting once again.

5. 正式答辩 (Oral Dissertation Defense)

博士学位论文的基本要求如下：

The basic requirements of doctoral dissertation are as follows:

(一) 应在指导老师指导下，由研究生本人独立完成；

It should be completed independently by the candidates themselves under the guidance of their supervisor.

(二) 论文应在人文社科领域做出创造性成果；

The dissertation should demonstrate that it has had innovative findings in the field of humanities and social science.

(三) 用于博士学位论文的工作时间一般应有2个学年左右。

In general, it takes about 2 academic years for the candidates to work on their doctoral dissertation.

学位申请人通过博士学位的课程考试和论文答辩，成绩合格，达到下述水平者，授予博士学位：

Candidates will be awarded a doctoral degree if they pass all the course examinations and final oral dissertation defense and have demonstrated the following:

(一) 较好地掌握马克思主义的基本理论；

Having mastered the basic theory of Marxism;

(二) 在本门学科上掌握坚实宽广的基础理论和系统深入的专门知识；

Having mastered solid and broad basic theories and systematic and detailed specialized knowledge in this discipline;

(三) 精通一门外国语。要求熟练地阅读本专业的外文资料，并具有一定的写作能力和听说能力；

Having been competent in a foreign language, skillful in reading literature in the foreign language related to the discipline undertaken, and writing and listening in that foreign language;

(四) 具有独立从事科学研究工作的能力，并在人文社会科学领域做出创造性的成果。

Having been able to conduct scientific research independently and to make innovative achievements in humanities and social science.

七、培养环节时间节点(Timeline and milestones)

	课程学习 Course Work	开题报告 Dissertation proposal reporting	中期考核 Mid-term Assessment	预答辩 Pre-oral defense reporting	论文答辩 Thesis/Dissertation Defense
硕士 Masters programs	第一学年 First academic year	第二学期 7 月 Second semester: July	第三学期 11 月 或 12 月 Third semester: November or December	第四学期 3 月中旬 Forth semester: Mid-March	第四学期 5 月中旬 Forth semester: Mid-May
博士 Doctoral programs	第一学年 First academic year	第二学期 Second semester	第四学期期末 End of forth semester	根据个人进展 Based on the individual progress	根据个人进展 based on the individual progress

公共政策与管理学院

School of Public Policy and Administration

公共政策与管理学院

School of Public Policy and Administration

公共管理类国际研究生培养方案

International Graduate Programs in Public Administration

一、培养目标 (Program objectives)

公共管理国际硕士研究生培养具有经济学、管理学基础理论，掌握公共管理专业知识和研究方法，了解公共管理学科前沿动态和实践进程；具有科学、严谨、务实的学风和独立研究公共管理学术问题和解决公共管理实际问题的能力；能够胜任各级公共组织的公共管理高级人才。

The Master's program aims to cultivate public administration professionals with the following characteristics. First, they have a basic theoretical basis in economics & management and have a good understanding of specialized knowledge, research methods, frontier dynamics and practical process of public administration. Second, they follow the good school discipline of Scientism, Rigor and Pragmatism and have the capacity to study academic problems independently & solve practical problems skillfully. Third, they are competent in public organizations at different levels.

公共管理国际研究生博士学位教育致力于培养有中国文化特色的具有扎实理论基础、良好的知识结构、较强的创新能力和独立研究能力的公共管理学科国际型高级专门人才。

The doctoral program in public administration is committed to the cultivation of international advanced professionals in public administration with solid theoretical basis, good knowledge structure, strong innovative ability and independent research ability with characteristics of Chinese culture.

二、研究方向 (Research fields)

本学科主要按公共管理大类培养国际研究生。

This program mainly trains international students according to the broad category of public administration.

三、学习年限 (Length of programs)

本学科国际硕士研究生学习年限一般为 2-3 年，国际博士研究生学习年限一般为 3-5 年。经批准可适当延长，延长时间不超过 1 年。

The length of Master's program is 2 to 3 years. The length of doctoral program is generally 3-5 years, which may be properly extended upon approval, and the extension period shall not exceed 1 year.

四、培养方式 (Program overview)

(一) 国际硕士研究生 (Master's program)

1. 研究生入学后，导师应按照本培养方案的要求，根据因材施教的原则，制定研究生的培养

计划，并指导研究生进行课程选修。

The tutors shall make training plans for the students and guide them to select courses based on the requirements of this training program and the principles of teaching students in accordance with their aptitude after their registration.

2. 硕士研究生的培养采取课程学习与学位论文并重的方式，分为课程学习和学位论文两个阶段，二者时间可以有一定交叉，其有效时间均不少于一年。

The cultivation of Master's candidate takes the method of paying equal attention to curriculum learning and dissertation research, which can be divided into two stages: course work and dissertation research. The two stages can cross each other to a certain extent.

3. 在指导上采取以指导教师为主、导师负责与硕士点集体培养相结合的方法。

Both the tutor-guidance plus collective training system is adopted in this program.

4. 整个培养过程应贯彻理论联系实际的方针，规定研究生参加必要的学术讲座、学术报告、培训讲座、社会实践和调查等，加强研究生的自学能力、动手能力、表达能力和写作能力的训练和培养，使其扎实掌握本专业的的基础理论和专门知识，掌握科学研究的基本方法。

The guidance principle of integrating theory with practice is adopted in the whole process of the training. The students shall improve their abilities (self-study ability, practice ability, expression ability and writing ability), improve their basic knowledge basis (theory knowledge & practical knowledge) and master the basic methods of scientific research by participating in necessary activities (academic lectures, academic reports, training seminars, social practice and investigation, etc.).

5. 研究生在导师指导下，于第二学期末完成论文选题工作并提交论文撰写计划。论文应结合国际、国内公共管理学科发展动态和我国公共管理发展中的实际问题进行选题，研究课题应具备科学性、创新性和可行性。

The thesis topic selection and research and writing plans for the dissertation shall be completed before the end of the second semester under the guidance of the tutor. The thesis topic selection shall combine the development trend of the discipline public administration internationally and domestically with the actual problems in the development of China's public administration. The research topic shall be decided based on scientific, innovative and feasible considerations.

6. 学位论文进行过程中，要求硕士生每隔一段时间，在一定范围内报告学位论文进展情况，导师、指导小组及有关人员参加，帮助硕士生分析论文工作进展中的难点，及时给予指导，促进论文研究工作的顺利开展。硕士学位论文完成后，按照“西安交通大学学位授予工作暂行办法”和学院有关规定组织学位论文的评阅和答辩工作。

In the process of the dissertation research, the Master's graduate students are required to report the progress of the thesis regularly. The tutor, guidance group and relevant experts shall attend the regular reports and promote the students' dissertation research (analyzing the difficulties, guiding the skills, etc.). The evaluation and oral defense of the dissertation shall be organized in accordance with the relevant regulations of the university and school when the dissertation is completed.

(二) 国际博士研究生 (International Doctoral Students)

以立德树人为根本任务，在培养计划制定、课程学习、课堂教学、导师指导等方面设计适合国际研究生的培养方式。

Based on the fundamental task of cultivating virtuous students, this program designs a suitable training method for international graduate students in the aspects of training plan formulation, course work, classroom teaching, tutor guidance, etc.

1. 结合国际研究生的特点进行中国概况和中国传统文化教育，以顺利开展培养期间的科学研究工作，并完成学业。

Combined with the characteristics of international doctoral students, The Outline of China I and the education of traditional Chinese culture are offered in order to proceed with the scientific research work during the training period smoothly and complete the program study.

2. 课程学习在国际博士研究生的培养工作中占有重要地位，课堂教学采用全英文授课或双语教学。国际博士研究生应通过课程学习加深理论基础，扩大专业面。此外还应充分考虑科学研究的需要，侧重学科知识的先进性和前沿性，注意扩大其知识面，重点培养其创新能力。

Course work plays an important role in the training of international doctoral students. English teaching or bilingual teaching shall be used in classroom teaching. International doctoral students should deepen their theoretical basis and expand their Specialization through course work. In addition, course work is focused on introducing the advanced and frontier of discipline knowledge, expanding students' knowledge, and cultivating students' innovation ability.

3. 在指导上采取博士生指导教师负责与学院集体培养相结合的方法。导师应根据培养方案的要求与国际博士研究生共同制定培养计划，并检查督促研究生的课程学习，指导研究生论文选题、文献查阅、调研、科研工作、学位论文撰写和答辩等。

In guidance, both tutor-guidance plus collective training system is adopted. In accordance with the requirements of the training program, the tutor shall work out a training plan with the international doctoral students, supervise the course study of the doctoral students, and guide the dissertation topic selection, literature review, surveys, scientific research work, dissertation writing, and oral dissertation defense of the graduate students, etc.

4. 导师所在系所在国际研究生培养计划的制定、博士学位论文选题、论文工作及论文撰写、预答辩和答辩等各个环节上应积极发挥集体培养的优势并起到质量监控的作用，以提高国际研究生的培养质量。

In order to improve the training quality of international graduate students, the tutor's department should actively give full play to the advantages of collective training and play the role of quality control in the formulation of the international graduate training plan, the dissertation topic selection, the work of thesis and the writing of dissertation, pre-oral defense reporting and oral dissertation defense, etc.

五、课程学习(course work)

(一) 国际硕士研究生(International Master's Graduate Students)

学术学位硕士生应至少取得 26 学分，包括：公共课（汉语（I）2 学分、中国概况（I）2 学分）4 学分、专业学位课至少 8 学分，选修课至少 14 学分。新港报告纳入国际留学生选修课，学生听够 20 场讲座后可记 2 学分。

必修环节包括：学术活动（讲座）1 学分、中期考核 3 学分。

The program of Master's students requires a total of at least 26 credits for course work. Required courses include *Comprehensive Chinese I* (2 credits), *The Outline of China I* (2 credits), degree courses

(no less than 8 credits), and elective courses (no less than 14 credits). Innovation Harbour Lectures are included in elective courses for international students, 2 credits will be granted after attending 20 Lectures.

Other compulsory activities include academic lectures (Masters) (1 credit), and mid-term assessment (3 credits).

国际硕士研究生课程设置和学分要求

Curriculum Design and Credit Requirements of Master's Program

课程类型 Course Type	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Name	学分 Credit	备注 Notes
公共学位课 Public Course	1	272003	LITE610112	中国概况（I） （The Outline of China I）	2	必修 4 学分 4 credits required
	2	272004	LITE610227	综合汉语（I） （Comprehensive Chinese I）	2	
专业学位课 Degree Course	1	182004	MAGT610418	公共管理研究方法 （Analysis methods of Public Administration）	2	至少修 8 学分 A minimum of 8 credits required
	2	182121	MAGT715418	公共政策分析 （Public Policy Analysis）	2	
	3	183010	MAGT640618	当代中国政府与政治 （Contemporary Chinese Government and Politics）	2	
	4	183012	MAGT640818	人口分析 （Demographic Analysis）	2	
	5	183013	MAGT640918	应用统计学 （Applied Statistics）	2	
	6	183014	MAGT641018	医疗保障制度国际比较 （International Comparison of Health Insurance System）	2	
选修课 Elective Course	1	182007	MAGT714118	卫生经济学 （Health Economics）	2	至少修 14 学分 A minimum of 14 credits required
	2	082177	MAGT840208	管理学基础 （Foundations of Management）	2	
	3	143006	MLMD640114	“一带一路”与中国开放格局研究 （The OBOR Initiative and	2	

课程类型 Course Type	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Name	学分 Credit	备注 Notes
				the open policy of China)		
	4	143007	MLMD640214	中国改革开放专题研究 (A Study of China's Reform and Opening-up)	2	
	5	212022	ECND740121	中级微观经济学 (Intermediate Microeconomics)	3	
	6	212023	ECND740221	中级宏观经济学 (Intermediate Macroeconomics)	3	
	7	212024	ECND740321	经济学分析方法 (Analytic Method of Economics)	3	
	8	212025	ECND740421	计量经济学 (Econometrics)	3	
				在全校全英文课程目录中选修 Elective courses on the list of postgraduate courses		
必修环节 Compulsory Activities	1	001997	BXHJ600399	学术活动(讲座)(硕) (Lectures) (Masters)	1	必修4学分 4 credits required
	2	001983	BXHJ600799	中期考核 (Mid-term Assessment)	3	

(二) 国际博士研究生(International Doctoral Students)

1. 课程设置应体现国际博士研究生的特点和学科发展的前沿，按一级学科的较宽口径培养，采取全英文授课。使博士生不仅具有本学科坚实宽广的基础理论和系统深入的专门知识，还要跟踪国际学术发展新趋势，充分注意新概念、新思想、新动态。

The doctoral courses are taught entirely in English and reflect the characteristics of international doctoral students and the frontiers of the discipline development based on the first level discipline. After the completion of course work, the students shall not only have solid theory basis and systematic specialized knowledge, but also have the ability to follow up the new trend of international academic development and pay full attention to new concepts, new ideas and new developments.

2. 学位课程力求适用面较宽、选择率较高，选修课程根据研究方向和学生特点，尽可能选择反映交叉学科、边缘学科和新兴学科等的课程。

Degree courses strive to be more widely applicable and have a high rate for being selected for learning. Elective courses should reflect interdisciplinary, frontier and emerging disciplines as far as possible.

3. 学术学位博士生课程学习应至少取得12学分，包括：公共课（汉语（II）2学分、中国概况（II）2学分）4学分、专业学位课至少4学分，选修课学分根据专业学位课、总学分要求设置，至少4学分。新港报告纳入国际留学生选修课，学生听够20场讲座后可记2学分。

必修环节包括：学术活动（讲座）2学分、开题报告2学分、中期考核6学分。

The program of doctoral students requires at least 12 credits for course work. Required courses include *Comprehensive Chinese II* (2 credits), *The Outline of China II* (2 credits), degree courses (no less than 4 credits), and elective courses (no less than 4 credits and set according to degree requirements). Innovation Harbour Lectures are included in elective courses for international students, 2 credits will be granted after attending 20 Lectures.

Other compulsory activities include academic lectures (doctoral) (2 credits), dissertation proposal reporting (2 credits), and mid-term assessment (6 credits).

国际博士研究生课程设置和学分要求

Curriculum Design and Credit Requirements of Doctoral Program

课程类型 Course Type	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Name	学分 Credit	备注 remarks
公共学位课 Public Course	1	121069	ENGL602312	中国概况（II） The Outline of China II	2	必修4学分 4 credits required
	2	271001	LITE600127	综合汉语（II） (Comprehensive Chinese II)	2	
专业学位课 Degree Course	1	182121	MAGT715418	公共政策分析 Public Policy Analysis	2	至少修4学分 A minimum of 4 credits required
	2	182004	MAGT610418	公共管理研究方法 Analysis methods of Public Administration	2	
	3	183010	MAGT640618	当代中国政府与政治 Contemporary Chinese Government and Politics	2	
	4	183012	MAGT640818	人口分析 Demographic Research	2	
	5	183014	MAGT641018	医疗保障制度国际比	2	

课程类型 Course Type	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Name	学分 Credit	备注 remarks
				较 International Comparison of Health Insurance System		
	6	183013	MAGT640918	应用统计学 Applied Statistics	2	
选修课 Elective Course	1	182007	MAGT714118	卫生经济学 Health Economics	2	至少修 4 学分 A minimum of 4 credits required
	2	082177	MAGT840208	管理学基础 Foundations of Management	2	
	3	143006	MLMD640114	“一带一路”与中国开 放格局研究 The OBOR Initiative and the open policy of China	2	
	4	143007	MLMD640214	中国改革开放专题研 究 A Study of China's Reform and Opening-up	2	
	5	212022	ECND740121	中级微观经济学 Intermediate Microeconomics	2	
	6	212023	ECND740221	中级宏观经济学 Intermediate Macroeconomics	2	
	7	212024	ECND740321	经济学分析方法 Analytic Method of Economics	2	
	8	212025	ECND740421	计量经济学 Econometrics	2	
				在全校研究生课程目录 中选修 Elective courses in the list of postgraduate	/	

课程类型 Course Type	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Name	学分 Credit	备注 remarks
				courses		
必修环节 Compulsory Activities	1	001999	BXHJ800399	学术活动(讲座) (博) (Lectures) (Doctoral)	2	必修 10 学分 10 credits required
	2	001986	BXHJ800499	开题报告 Dissertation proposal	2	
	3	001994	BXHJ800199	中期考核 Mid-term Assessment	6	

六、培养环节(Compulsory Activities)

(一) 国际硕士研究生(International Master Students)

1. 学术活动(讲座)(Lectures)

国际硕士研究生学术活动(讲座)分为必听讲座和选听讲座。必听讲座包括“科学道德与学风建设”1次、“职业生涯发展与规划导论”1次;选听讲座包括与学科紧密相关的“学科前沿系列专题讲座”(由各二级学科组织若干教授对本学科前沿知识进行讲座,每个讲座由5个以上讲座组成)一个系列和在全校范围内选听“学术讲座”1次,完成全部8个讲座后记1学分。

International Master's graduate students are required to attend 8 lectures, including 2 compulsory lectures (one on Scientific Morality and Construction of Study Style, and one on Introduction to Career Development and Planning), 5 lectures in a series regarding discipline-specific frontiers information (organized by respective individual school), and 1 elective within the university. Students will obtain 1 credit with full attendance to 8 lectures.

2. 开题报告(Opening Report)

申请硕士学位的研究生须在第二学期结束前完成学位论文开题报告。开题报告须由系(所)单位统一组织,评审小组3-5名副高以上(含副高)专家组成。评审专家根据硕士生汇报情况和回答问题情况就选题的意义、创新性、可能遇到的问题、是否同意选题等写出结论性的审查意见,并将结果和相关材料留学院备案。

Master's graduate students shall complete the thesis proposal before the end of the second semester. The thesis proposal reporting meeting shall be organized by the respective department (institute), and the assessment team is composed of 3-5 experts with or above associate professors. The evaluation experts will comment on the report (the significance, innovation and possible problems of the topic, whether the topic is approved or not) based on the students' report performance, and assessment results and relevant materials will be kept as record files.

3. 中期考核(Mid-term Assessment)

申请硕士学位的研究生须在入学第四学期末完成硕士中期考核。中期考核由学院负责统一组织,考核小组由5名副高以上(含副高)专家组成。考核专家依据硕士研究生的论文进展情况,同时参阅其课程学习和开题报告情况对其进行考核。中期考核结束后,考核专家应在表格中填写

考核评价结果、评语和论文修改意见。硕士研究生中期考核通过后记 3 学分。

Master's graduate students shall complete the mid-term assessment at the end of the fourth semester. The mid-term assessment shall be organized by the respective, and the assessment team is composed of 5 experts with or above associate academic titles. Assessment experts will assess the progress of Master's thesis, as well as their course learning and thesis proposal report. After the mid-term assessment, the assessment experts shall fill in the form with assessment results, comments and suggestions for improvement. 3 credits will be given to the M's graduate students after they pass the mid-term assessment.

4. 预答辩 (Pre-oral Defense Reporting)

研究生完成学位论文后必须在系(所)范围内组织预答辩。预答辩由系(所)主任(所长)主持,研究生报告自己的研究成果,预答辩须严格审查论文选题的意义、是否有独立见解、工作量等。针对预答辩中提出的问题,研究生要进行修改与补充,经系(所)主任(所长)同意报院长审批后,方可进入论文评阅、答辩。问题较多的学位论文经过研究生修改后须重新组织预答辩。

After the completion of the dissertation, the pro-oral thesis/dissertation defense shall be organized by the respective department/institute (the director of the department/institute shall host the activity). The students shall report their research results in the meeting while the significance of the topic, the innovation of the research and the workload of the research will be carefully checked. The students shall revise and complete their dissertation according to the comments on their dissertation in pre-oral defense meeting. Only when the dissertation is approved by the deputy dean and the dean of the school will the dissertation be sent out for reviewing and finally for oral defense. The students with lots of problems in their dissertation will have to retake the dissertation proposal reporting.

5. 学位论文 (Dissertation)

学位论文工作是硕士研究生在校期间的�主要工作。硕士研究生学位论文应在指导教师指导下,由研究生本人独立完成。为保证论文质量,论文工作必须有一定工作量,在论文题目确定后,用于硕士学位论文工作的时间一般应有 1 个学年左右。

Dissertation work is the main work of Master's graduate students. The dissertation should be completed independently by the Master's graduate students under the guidance of the tutor. In order to ensure the quality of the dissertation, the time spent on the work of the dissertation should be at least one year.

硕士研究生在预答辩通过后,向学院提交一本匿名学位论文,由学院学位分委员会委托的专家组匿名审核。通过专家组匿名审核的学位论文由导师安排院内外各一名专家对学位论文进行实名评阅。评阅通过后,进行学位论文答辩审批。审核同意后,安排正式答辩。未通过匿名审核,须按照要求对学位论文进行修改,重新提交下一次学院委托的专家组匿名评审。学院每年受理四次学位申请。学位论文通过正式答辩后,上交院学位分委员会审议。由院学位分委员会审查通过后上报校学位委员会。

After pre-oral dissertation defense reporting passes the assessment, the students shall submit an dissertation with no author's name. Then, dissertation will be reviewed by the experts group entrusted by the school's degree subcommittee. Then the tutor of the dissertation shall arrange an expert from the school and an expert outside the school to review the dissertation in real name. After reviewing and it is deemed qualified, the application for oral dissertation defense shall be submitted for approved. After the

e approval is obtained, the oral dissertation defense will be arranged. If the student fails to pass the anonymous review, the dissertation shall be revised as required and resubmitted to the expert group entrusted by the school for anonymous review another time. The school receives applications for granting degrees four times a year. After the dissertation passes the formal oral defense, it shall be submitted to the academic degree sub-committee of the school for deliberation. The report shall be submitted to the academic degree committee of the university after being examined and approved by the academic degree committee of the university.

(二) 国际博士研究生(Doctoral Students)

1. 学术活动(Lectures)

国际博士研究生学术活动(讲座)分为必听讲座和选听讲座。必听讲座为“科学道德与学风建设”;选听讲座包括与学科紧密相关的“学科前沿系列专题讲座”(由各二级学科组织若干教授对本学科前沿知识进行讲座,每个讲座由 5 个以上讲座组成)一个系列和在全校范围内选听“学术讲座”1 次,共 8 次。同时,学生个人在公管学院“博士生学术论坛”公开讲座 3 次,完成后记 2 学分。

International doctoral students are required to attend 8 lectures, including 1 compulsory lecture (one on Scientific Morality and Construction of Study Style), 5 lectures in a series regarding discipline-specific frontiers information organized by respective individual school), and 1 elective within the university. In addition, every student shall give 3 public lectures in the Doctoral academic Forum of school of public policy and administration.

2. 开题报告(Opening Report)

博士学位论文选题应是从本一级学科的某一研究方向提出的对公共管理研究领域发展或国民经济具有较大理论意义及具有一定学术水平和实用价值的课题。

The topic selection of doctoral dissertation should be a subject with great theoretical significance, high academic level and practical value for the development of public management research field or the national economy from a certain research direction of the first-level discipline.

国际博士研究生须在导师指导下在第一学年内完成选题报告,选题报告会由博士生所在基层单位组织,有 5 名教授参加,经参加人无记名投票,认可人数超过半数,选题报告方被通过。不通过者,允许参加下次选题报告。

International doctoral students are required to complete the topic selection report within the first academic year under the guidance of their tutors. The topic selection report will be organized by the grass-root organization where the doctoral students are located, with the participation of 5 professors. The report of the selected topic is adopted when more than half of the experts approve it by secret ballot voting. Those who do not pass the report are allowed to participate in the next topic selection reporting meeting.

3. 中期考核(Mid-term Assessment)

国际博士研究生培养实行中期考核,第四学期由学院组织中期考核,考核通过者继续攻博;不通过者,取消学校奖助金的评定资格,但可以在下学期进行补考核,再次考核不通过者,予以分流处理。

The mid-term assessment is carried out and organized by the college in the fourth semester. Those who pass the assessment continue to study for a doctorate, while those who fail the assessment are disqualified from the assessment of the school grant but given a supplementary assessment in the next semester. In addition, the doctoral students who fail the supplementary assessment will be diverted.

4. 预答辩(Pre-oral defense reporting)

博士论文基本完成后，由基层单位组织预答辩，对论文进行质量监督并提出修改意见。预答辩通过后，修改并正式提交博士学位论文，报学院送交论文评阅人评审，依据评审意见及博士学位论文社会评价材料，再报学院批准后，进行学位论文答辩。

After the completion of the doctoral thesis, the grass-root organization should organize the pre-oral defense reporting of the dissertation findings, check the quality of the dissertation and put forward suggestions for improvement. After the pre-oral defense reporting, the students should revise and formally submit doctoral thesis to the school. The doctoral dissertation will be reviewed by experts. The students will go for the oral dissertation defense based on the Review opinion and social Evaluation materials after the school authorities approve the application.

5. 学位论文(Dissertation)

1) 博士学位论文工作是博士生在校期间的最主要工作。博士论文反映了博士生是否掌握坚实而宽广的理论基础和系统深入的专门知识，是否具有独立从事科学研究工作的能力，是否具有创造性，是能否被授予博士学位的关键。博士论文的完成也是博士生为公共管理学科的发展和国民经济建设所作的贡献。

The doctoral dissertation work is the main work of doctoral students at school. Doctoral dissertation is the key to awarding doctorate. It should reflect the theoretical basis, specialized knowledge, independent scientific research ability and innovation ability of individual doctoral student. The completion of doctoral dissertation is also the contribution of doctoral students to the development of public administration and the construction of national economy.

2) 博士学位论文工作是博士生培养的关键和核心。博士生在校期间应把主要精力投入与博士学位论文有关的科学研究和论文的撰写上。博士学位论文应在导师的指导下，由博士生本人独立完成。论文应有较强的系统性和创造性成果。

Doctoral dissertation work is the key and Core of doctoral Student training. Doctoral students should devote their main strength and energy to scientific research and dissertation writing. The doctoral dissertation should be finished by the doctoral students themselves under the guidance of the tutor. The dissertation should have strong systematic and innovative achievements.

3) 为保证论文质量，论文工作必须有一定工作量，用于论文工作的实际时间一般不少于二学年。

In order to ensure the quality of the dissertation, the time spent on the work of the paper is generally not less than two academic years.

4) 博士学位论文达到西安交通大学相关文件规定的博士学位论文的基本要求方能申请答辩。

Only when the doctoral dissertation meets the basic requirements of the doctoral dissertation stipulated in the relevant documents of Xi'an Jiaotong University can the doctoral students apply for the oral dissertation defense.

七、培养环节时间节点(Timeline and milestones)

学位类型 Program Type	课程学习 Course Work	开题报告 thesis/dissertation proposal reporting	中期考核 Mid-term Assessment	预答辩 Pre-oral defense Reporting	论文答辩 Thesis/Dissertation Defense
硕士 Master's program	第一学年 First year	第二学期末 End of second semester	第四学期末 End of fourth semester	第六学期6周前 Within six weeks of sixth semester	第六学期末 End of sixth semester
博士 Doctoral program	第一学年 First year	第二学期 Second semester	第四学期 Fourth semester	规定学习时间之内，满足学位申请条件以后 Within the required length of program; After meeting the requirements for a degree application	

前沿科学技术研究院

Frontier Institute of Science and Technology

前沿科学技术研究院

Frontier Institute of Science and Technology

材料及物理类、生物类国际研究生培养方案

International Graduate Programs in Materials and Physics Fields/ Biomedical Field

(一) 材料及物理类博士研究生培养方案 (适用于多学科材料研究中心、材料物理中心、微观组织科学中心的博士研究生, 或根据导师要求使用)

Doctoral programs in materials and physics fields are applicable for doctoral students in Multi-disciplinary Materials Research Center (MMRC), Materials Physics Center (MPC), and the Center for Microstructure Science (CMS), etc.

一、培养目标 (Program objectives)

培养适应国民经济发展和社会主义建设需要的、具有国际视野的创新型人才, 提高研究生的自主学习能力和创新实践能力, 具体要达到以下要求:

The programs aim to cultivate innovative talents that have international vision, serve the needs of economic development and construction, and to improve their independent learning ability and innovative practice ability. The following are specific requirements:

1. 热爱祖国, 遵纪守法, 道德品质好, 愿为科研事业奉献、服务。

Students should love their motherland, obey laws, have good moral qualities, and engage in scientific research.

2. 在材料物理领域掌握坚实宽广的基础理论和系统深入的专门知识; 在所从事的研究方向上做出创造性成果。

Students are expected to know solid knowledge, broad basic theories and have systematic in-depth specialized knowledge in the field of materials physic, and obtain innovative results in the research area undertaken.

3. 具有独立从事科学研究工作的能力; 具有实事求是, 科学严谨的治学态度和工作作风。

Students have the ability to work independently in scientific research and have a down-to-earth work style and rigorous academic attitude.

4. 能够熟练地阅读本领域的外文资料, 并具有一定的听说和写作。

Students are proficient in reading literature in materials physics in a foreign language and are able to listen and speak in that foreign language.

二、研究方向 (Research fields)

1. 记忆材料、压电材料、磁致伸缩材料等各种智能材料及其物理、化学、力学性能研究; 致

力于能够带来超高性能或全新性能的普遍性新原理的发现以及由此设计和开发高性能新型智能材料。

Research on intelligent materials, such as shape memory polymer, piezoelectric ceramics, magnetostrictive metals and their physical, chemical, and mechanical properties; discovering general new mechanism that can lead to ultra-high and new performance of materials, from which new intelligent materials can be designed and developed.

2. 先进结构材料与铁性功能材料相变过程微观组织演化、高温和应力作用下微观组织与位错的交互作用, 力-电和电-磁耦合多铁材料, 集成计算材料科学与工程。

Understanding the interaction between microstructure and dislocation during phase transformation of structural and ferrous functional materials; studying the relationship between microstructure and dislocation under high temperature and stress; studying the force-electric and electric-magnetic coupling of multi-ferric materials.

3. 计算材料学以及纳米材料研究、材料模拟基础方法 (电子结构、原子层次模拟)、多尺度多物理模拟、以及新型功能材料的研究与开发。

Research on computational materials science and nanomaterial, basic methods for material simulation (electronic structure simulation, atomic level simulation), multi-scale and multi-physics simulation, and research and development of new functional materials.

三、学习年限 (Length of programs)

国际博士研究生学习年限一般为 3-5 年, 经批准可适当延长, 延长时间不超过 1 年。

The general of doctoral programs is 3 to 5 years. Prolongation (no more than one year) needs approving by the university.

四、课程学习 (Course work)

学术学位博士生课程学习应至少取得 12 学分, 包括: 公共课 (汉语 (II) 2 学分、中国概况 (II) 2 学分) 4 学分, 专业学位课至少 4 学分, 选修课至少 4 学分。

The academic doctoral programs require at least 12 credits for course work. Required courses include *Comprehensive Chinese II* (2 credits), *The Outline of China II* (2 credits), degree courses (no less than 4 credits), and elective courses (no less than 4 credits).

必修环节包括: 学术活动 (讲座) 2 学分、开题报告 2 学分、中期考核 6 学分。

Other compulsory activities include academic lectures (doctoral) (2 credits), dissertation proposal (2 credits), and mid-term assessment (6 credits).

材料及物理类国际博士研究生课程设置和学分要求

Curriculum and Credits Requirements of Doctoral Programs in Materials and Physics

课程类型 Course Type	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称* Course Title	学分 Credit	备注 Notes
公共学位课 Public Course	1	272003	ENGL602312	中国概况 (II) (The Outline of China II)	2	必修 4 学分 4 credits required
	2	272004	LITE600127	综合汉语 (II) (Comprehensive Chinese II)	2	
专业学位课 Degree Course	1	022038	MATL750302	固态相变 (Phase Transitions in Solid)	2	至少修 4 学分 A minimum of 4 credits required
	2	022050	MATL740202	Frontiers of Materials Science	2	
	3	023001	MATL712902	材料物理性能 (Physical Properties of Materials)	2	
	4	022021	MATL711302	智能材料 (Smart Materials)	2	
	5	052191	EELC612005	Principles Of Electronic Materials And Devices	2	
选修课 Elective Course	1	052190	EELC611905	Electronic thin films and applications	2	至少修 4 学分 A minimum of 4 credits required
	2	022052	MATL740402	Electron Microscopy and its Application in Materials Science	2	
	3	022053	MATL740502	Advanced Energy Materials	2	
	4	042109	ELEC714504	科技论文写作 (Scientific Writing)	1	

课程类型 Course Type	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称* Course Title	学分 Credit	备注 Notes		
	5	052177	EELC713605	Introduction to Electron Microscopy	2			
	6	283002	BIME840128	骨组织修复与再生材料 (Biomaterials for Bone Repair and Regeneration)	2			
	7	283001	MATL640128	磁学导论与磁性材料 (Magnetism Fundamentals and Magnetic Materials)	2			
	8	152078	BASM611815	诺贝尔奖论文剖析 (The Analysis of the Articles Acquired Nobel Prize)	2			
	9	152049	PUBH610615	数据管理与分析 (Management and Analysis of Data)	2			
				Elective courses under your advisors' suggestion				
	必修环节 Compulsory Activities	1	001999	BXHJ800399	学术活动(讲座) (博) (Lectures) (Doctoral)		2	必修 10 学分 10 credits required
		2	001986	BXHJ800499	开题报告 (Dissertation Proposal)		2	
		3	001994	BXHJ800199	中期考核 (Mid-term Assessment)		6	

*有些英文课程没有中文名称，以课程编号为准。

For courses without Chinese titles, check the course code when selecting courses.

五、培养环节 (Compulsory Activities)

1. 学术活动 (讲座) (Lectures)

国际博士研究生学术活动 (讲座) 分为必听讲座和选听讲座。必听讲座为“科学道德与学风建设”; 选听讲座包括与学科紧密相关的“学科前沿系列专题讲座” (由各二级学科组织若干教授对本学科前沿知识进行讲座, 每个专题讲座由 5 个以上讲座组成) 一个系列和在全校范围内选听“学术讲座”1 次, 自己公开讲座 1 次, 完成后记 2 学分。新港报告纳入国际留学生选修课, 学生听够 20 场讲座后可记 2 学分。

Doctoral students are required to attend 7 lectures, including: a compulsory one on scientific morality, 5 lectures in a series regarding discipline-specific frontiers information (organized by respective individual school), and 1 elective lecture. In addition, doctoral candidates are required to give a lecture by students themselves. Students will obtain 2 credits by completing the whole series of activities. Innovation Harbour Lectures are included in elective courses for international students, 2 credits will be granted after attending 20 Lectures.

2. 开题报告 (Dissertation Proposal)

博士研究生一般在第三学期组织开题，需提交选题报告，并参与答辩报告会。选题报告使用英文填写《博士研究生学位论文选题报告》，主要内容包括：选题的科学依据、主要研究内容和方案、研究计划及预期进展。准备英文版 PPT，用英文答辩、问答，每位同学个人陈述 15-20 分钟，评审专家提问环节 5-10 分钟。评审专家组一般至少由 4 位以上教师组成。评审专家根据研究生选题报告以及现场答辩情况给出评审结果。通过后记 2 学分。

Doctoral students should complete dissertation proposal reporting in the third semester, deciding on the topic of doctoral dissertation. The dissertation should be completed in English. The main contents include the scientific basis for the topic chosen, the main contents, research plans and expected results. Students are required to present the proposal in PPT slides and deliver in English in 15-20 minutes, and question-answer session will last 5-10 minutes. The reviewer panel is made up of at least four or more professors. Students will obtain 2 credits by completing the whole series of activities.

3. 中期考核 (Mid-term Assessment)

中期考核一般在第四学期完成，需提交《中期进展报告》、成绩单，并参加答辩报告会。中期报告使用英文填写《中期进展报告》，经导师签字确认。准备英文版 PPT，用英文答辩、问答，每位同学个人陈述 15-20 分钟，评审专家提问环节 5-10 分钟。评审专家小组应由至少 5-7 名本学科或相关学科博士生导师组成。专家依据博士研究生的论文课题进展情况进行考核，必要时可参阅其课程学习和选题报告情况进行综合评议，并给出考核结果。

The mid-term assessment is generally completed in the fourth semester. It is required that students submit the “Mid-term Progress Report” and transcripts. The report is completed in English and signed by the tutor. Students will deliver the report in PPT slides and speak in English for 15-20 minutes and question-answer session will be in English and will last for 5-10 minutes. The reviewer panel is made up of at least 5-7 doctoral supervisors of the discipline undertaken and the related disciplines.

博士生中期考核实行分流机制，考核结果纳入学生成绩管理，中期考核合格者将获得相应学分。在本次考核中，中期考核不合格者将被确定为初步分流对象；凡培养计划中任何一门课程不及格，或未完成之前的选题报告，或未经学院批准无故不参加中期考核者将被直接认定为初步分流对象。被认定为初步分流对象的博士研究生仍可申请参加在随后一学期的补考核（具体时间由学院确定）。凡在补考核中，仍未通过者，均视为补考核不通过，并将被认定为最终分流对象。

博士中期考核合格后记 6 学分。

The doctoral student's mid-term assessment is important. Those who pass the mid-term assessment will obtain 6 credits. Those who fail in the mid-term assessment will have a second chance. And if they still fail another time, they will be terminated from their doctoral program. Candidates who fail in any course work, or who hasn't completed completing dissertation proposal or who was absent from mid-term assessment without approval will be the students to be terminated from their program if they

fail again in the second chance given.

4. 预答辩 (Pre-oral dissertation defense reporting)

研究生完成学位论文及培养计划规定的内容后，在规定的时间内提交学位申请书、学位论文、学习成绩单以及在学期间发表的学术论文和取得的研究成果证明，在指导教师审查同意后组织预答辩。

After the completion of the dissertation, students are required to take part in the pre-oral dissertation defense reporting meeting. Before the meeting, the doctoral candidates are to submit the degree application, dissertation, academic transcript, journal articles and the proof of research results to the office managing the graduate affairs.

5. 学位论文 (Dissertation)

对博士研究生，学位论文应在指导老师指导下由研究生本人独立完成，如果实际科研中存在多位指导老师，在学位论文上应同时署名多位导师。论文应在科学或专门技术上做出创造性成果，并在理论上或实际上，对社会主义建设有较大的意义；用于博士学位论文的工作时间一般应有 2 个学年左右。

The dissertation should be completed independently by the graduate candidates under the guidance of their supervisor. If there are two or more supervisors for a candidate, all of them will sign their names on the copyright page and innovation announcement page of the dissertation. The dissertation research should demonstrate the research has brought about innovative findings in science or technology, and the results are significant in theory or practice to the development of the country. The working time for doctoral dissertations researches generally is about 2 academic years.

学位论文内容一般应包括：独创性声明、保护知识产权声明、中英文摘要、目录、引言、正文（理论分析；实验装置和测试方法；对实验结果的分析、讨论与理论计算结果的比较）、结论、致谢、参考文献、攻读博士学位期间的研究成果及附录等。博士学位论文 5 万字左右。文字要语句精练通顺，条理分明，文字、图表清晰整齐。

The structure of the dissertation generally includes the following sections: statement of originality, statement of protection of intellectual property rights, abstract, contents page, introduction, body of the text (theoretical analysis; experimental setup and methods; analysis of experimental results, comparison of discussion and theoretical results), conclusion, acknowledgments, references, research results during the PhD study and appendices. The doctoral dissertation is about 50,000 words long. The dissertation must be read smooth, longical, and the graphs and characters must be clear in print.

六、培养环节时间节点(Timeline and milestones)

博士 Doctoral program	课程学习 Course Work	开题报告 Dissertation Proposal	中期考核 Mid-term Assessment	预答辩 Pre-oral dissertation defense reporting	论文答辩 Oral Dissertation Defense
时间点	第一年	第三学期	第四学期	对应学位会指定日期之前	对应学位会指定日期

Timeline	First Year	Third Semester	Fourth Semester	Before the designated date of the corresponding degree committee meeting	之前 Before the designated date of the corresponding degree committee meeting
具体要求 Specific requirements	完成课程设置要求的所有内容 Complete all the course work	提交选题报告、通过答辩 Submit dissertation proposal and report it in a meeting to pass it	提交中期考核报告、通过答辩 Submit the mid-term assessment report and pass the oral defense	完成通过所有课程、必修环节考核, 满足所在中心毕业要求, 完成博士学位论文初稿并通过学术不端检测 Complete all course work compulsory activities, fulfill other graduation requirements, complete doctoral dissertation and pass the academic misconduct test	完成预答辩, 通过送审, 经过答辩审批 Complete the pre-oral defense reporting, pass the dissertation reviewing, and pass the oral dissertation defense

(二) 生物类博士研究生培养方案 (适用于生物工程与再生医学研究中心、转化医学研究中心、线粒体生物医学中心、神经和疾病研究中心和骨骼关节疾病与治疗研究中心的普通博士研究生)

Doctoral programs in biomedical field, applicable to doctoral students in Center for Biomedical Engineering and Regenerative Medicine (CBERM), Center for Translational Medicine (CTM), Center for Mitochondrial Biology and Medicine (CMBM), Center for Neuron and Disease (CND), Bone and Joints Research Center (BJRC).

一、培养目标 (Program objectives)

为满足社会的需求, 以培养为科研、教学和高技术产业服务的德、智、体全面发展的生物医学领域人才为目标, 具体要求为:

The programs aim to cultivate talents in morality, intelligence and physique, intellectual and physical development who serve the scientific research/teaching/high-tech industries. The detailed contents are as below:

1. 热爱祖国, 遵纪守法, 积极为国家和社会发展服务。

Students love the motherland, respect the law, and positively serve the development of the country and the society.

2. 在生物医学领域掌握坚实宽广的基础理论和系统深入的专门知识; 在所从事的研究方向上做出创造性成果。

Students have mastered solidly and broadly basic theories, and systematic detailed specialized acknowledge in biomedical field, and have made innovative achievements in the area of research.

3. 具有独立从事科学研究工作的能力; 具有实事求是, 科学严谨的治学态度和工作作风。

Students have developed the ability to work independently in scientific research and a down-to-earth work style and rigorous academic attitude.

4. 掌握一门外语, 熟练的进行书面和口头交流, 阅读外文资料。

Students have mastered a foreign language, and can communicate skillfully in written and oral and read literature in that foreign language.

二、研究方向 (Research fields)

1. 以干细胞生物工程与再生医学为研究目标, 研发先进的新型生物医用材料, 生物分子和药物的控制释放技术, 诱导干细胞的分化, 用动物模型试验结合基础研究来探索生物材料组织再生的机制。主要研究方向包括: 先进的新型可降解生物材料合成与应用; 生物分子和药物的控制释放技术; 生物材料与组织工程。

The research activities include the following: stem cell bioengineering and regenerative medicine, advanced new biomedical materials and controlled release technology for biomolecules and drugs to induce stem cell differentiation, and the mechanism of biomaterials for tissue regeneration based on basic research in animal model experiments. The main areas of research include the following: the fabrication and application of advanced biodegradable biomaterials; the controlled release technology of biomolecules and drugs; biomaterials for tissue engineering.

2. 致力于具有广泛临床应用前景的多学科基础生物医学研究, 涉及学科包括多肽与蛋白质化学、结构生物学、肿瘤生物学、微生物学、免疫学、纳米药学等。通过多学科交叉研究肿瘤、感染性疾病和免疫性疾病的发病机制; 设计开发抗肿瘤和抗感染的多肽类药物以及它们的递送手段。

Multidisciplinary basic biomedical research with a wide range of clinical applications, including peptide and protein chemistry, structural biology, tumor biology, microbiology, immunology, nano-pharmaceutical and so on; the pathogenesis of tumors, infectious diseases and immune diseases based on multidisciplinary studies; Designing and developing the anti-tumor and anti-infective peptide drugs and their delivery strategies.

3. 以线粒体代谢为研究重点, 致力于探讨衰老及衰老相关疾病在分子细胞生物学水平上的调控机制, 开发靶向于调控线粒体代谢的营养素和药物, 从而有效预防和治疗各种疾病的发生发展。

With mitochondrial metabolism as key of studies, exploring the regulation mechanism of ageing and ageing-related diseases at the level of molecular and cellular biology, and developing nutrients and drugs that target the regulation of mitochondrial metabolism

4. 致力于神经和相关疾病的基础研究, 建立研究人类疾病的动物模型。主要探索认知以及脑疾病中的分子机制、寻找新的信号分子蛋白、研究其生理机制以及在发育过程和病理状态下的功能变化、明确信号分子在认知过程和脑疾病发生和发展过程中的地位和作用。

Basic research on nerves and related diseases and establishment of animal models for treating human diseases; the molecular mechanisms in cognition and brain diseases, new signaling molecules, their physiological mechanisms, and functions in the developmental and pathological states; and the status and role of signaling molecules in in cognitive processes and the development and progression of brain diseases.

5. 致力于骨、软骨、肌肉和其它关节软组织发育和衰老的基础研究, 建立研究人类骨骼肌肉关节疾病的动物模型, 发展诊断和治疗相关疾病的纳米医学和组织工程学, 包括: 细胞外基质, 软骨和骨组织工程, 软骨和骨的机械调控, 骨关节炎、骨质疏松和其它关节退行性疾病的机制研究、创伤、糖尿病、衰老、绝经以及各种免疫及代谢性疾病引起的骨质疏松和骨关节炎, 骨骼的免疫调控及骨骼细胞内信号转导、急性和慢性感染及炎症对于骨骼的影响、骨髓及间充质干细胞

的增值分化和对骨、软骨、肌肉细胞分化代谢的调控、骨折和骨折愈合、研发天然药物和传递以预防诊断和治疗骨质疏松，骨关节炎，以及其它骨骼肌肉关节疾病。

The fundamental research of the development and ageing of bone, cartilage, muscle and other joint soft tissues, establishment of animal models for the study of human skeletal muscle and joint diseases, the development of nanomedicine and tissue engineering for the diagnosis and treatment of related diseases, including: extracellular matrix, tissue engineering of cartilage and bone, mechanical regulation of cartilage and bone, mechanisms of osteoarthritis, osteoporosis and other joint degenerative diseases, osteoporosis and osteoarthritis caused by trauma, diabetes, aging, menopause, and various immune and metabolic diseases, immune regulation of bones and signal transduction in bone cells, effects of acute and chronic infections and inflammation on bones, proliferation and differentiation of bone marrow and mesenchymal stem cells and regulation of differentiation and metabolism of bone, cartilage and muscle cells, fracture and fracture healing, development of natural medicines and transmission to prevent diagnosis and treatment of osteoporosis, osteoarthritis, and other musculoskeletal joint diseases.

三、学习年限 (Length of program)

国际博士研究生学习年限一般为 3-5 年，经批准可适当延长，延长时间不超过 1 年。

The length of doctoral programs is 3 to 5 years. Prolongation (no more than one year) has to be approved by the university.

四、课程学习 (Course work)

学术学位博士生课程学习应至少取得 12 学分，包括：公共课（汉语（II）2 学分、中国概况（II）2 学分）4 学分，专业学位课至少 4 学分，选修课至少 4 学分。

The academic doctoral programs require at least 12 credits for course work. Required courses include *Comprehensive Chinese II* (2 credits), *The Outline of China II* (2 credits), degree courses (no less than 4 credits), and elective courses (no less than 4 credits).

必修环节包括：学术活动（讲座）2 学分、开题报告 2 学分、中期考核 6 学分。

Other compulsory activities include academic lectures (doctoral) (2 credits), dissertation proposal (2 credits), and mid-term assessment (6 credits).

生物医学类国际博士研究生课程设置和学分要求

Curriculum Design and Credit Requirements of Doctoral Programs in Biomedical field

课程类型 Course Type	序号 No.	课程编码 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
公共学位课 Public Course	1	272003	ENGL602312	中国概况（II） （The Outline of China II）	2	必修 4 学分 4 credits required
	2	272004	LITE600127	综合汉语（II） （Comprehensive Chinese II）	2	

课程类型 Course Type	序号 No.	课程编码 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
专业学位课 Degree Course	1	132067	BIOL610113	高等分子细胞生物学 (Advanced Molecular Biology of Cell)	2	至少修 4 学分 A minimum of 4 credits required
	2	152025	BASM611415	组织化学与免疫组织化学 (Histochemistry and Immunohistochemistry)	2	
	3	152197	BIOL611115	医学分子生物学 (Medical Molecular Biology)	2	
	4	012211	MACH741101	先进医疗器械设计方法 (Design Methodology of Advanced Medical Devices)	2	
	5	022050	MATL740202	材料科学前沿 (Frontiers of Materials Science)	2	
	6	133006	BIOL640213	Mitochondrial Biology and Medicine	2	
选修课 Elective Course	1	013705	MACH741001	电活性功能材料与结构导论特性与应用 (Electroactive Polymer Materials and Structures Properties and Applications)	2	至少修 4 学分 A minimum of 4 credits required
	2	022021	MATL711302	智能材料 (Smart Materials)	2	
	3	022052	MATL740402	电子显微镜在材料科学中的应用 (Electron Microscopy and its Application in Materials Science)	2	
	4	042109	ELEC714504	科技论文写作 (Scientific Writing)	2	
	5	152017	BASM610815	现代生物技术 (Modern Biotechnology)	2	
	6	152049	PUBH610615	数据管理与分析 (Management and Analysis of Data)	2	

课程类型 Course Type	序号 No.	课程编码 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
	7	152075	BASM611715	医学科学研究导论 (Introduction of the Research in Medical Science)	2	
	8	152073	BASM611615	动物实验与实验动物学 (Animal Experiment and Laboratory Animal Science)	2	
	9	283002	BIME840128	骨组织修复与再生材料 (Biomaterials for Bone Tissue Repair and Regeneration)	2	
	10	152078	BASM611815	诺贝尔奖论文剖析 (The analysis of the articles acquired Nobel Prize)	2	
必修环节 Compulsory Activities	1	001999	BXHJ800399	学术活动(讲座)(博) (Lectures)(Doctor)	2	必修 10 学分 10 credits required
	2	001986	BXHJ800499	开题报告 (Dissertation Proposal)	2	
	3	001994	BXHJ800199	中期考核 Mid-term Assessment	6	

五、培养环节 (Compulsory Activities)

1. 学术活动 (讲座) (Lectures)

国际博士研究生学术活动 (讲座) 分为必听讲座和选听讲座。必听讲座为“科学道德与学风建设”; 选听讲座包括与学科紧密相关的“学科前沿系列专题讲座”(每个专题讲座由 5 个以上本学科讲座组成) 一个系列和在全校范围内选听“学术讲座”1 次, 自己公开讲座 1 次, 完成后记 2 学分。新港报告纳入国际留学生选修课, 学生听够 20 场讲座后可记 2 学分。

The lectures for international doctoral students include compulsory lectures and elective lectures. The compulsory lectures are composed of the lectures about scientific ethics and academic atmosphere construction. The elective lectures consist of discipline-related series of lectures about frontier development (5 lectures in a series regarding discipline-related lectures organized by respective individual schools), and 1 elective lecture in the university. In addition, they are also required to give an open lecture. With all the lectures described above attended, students can get 2 credits for the lectures required. Innovation Harbour Lectures are included in elective courses for international students, 2 credits will be granted after attending 20 Lectures.

2. 开题报告 (Dissertation Proposal)

博士研究生一般在第三学期组织开题, 需提交选题报告, 并参与答辩报告会。选题报告使用英文填写《博士研究生学位论文选题报告》, 主要内容包括: 选题的科学依据、主要研究内容和方案、研究计划及预期进展。准备英文版 PPT, 用英文答辩、问答, 每位同学个人陈述 15-20 分钟, 评审专家提问环节 5-10 分钟。评审专家组一般至少由 4 位以上教师组成。评审专家根据研究生选题报告以及现场答辩情况给出评审结果。通过后记 2 学分。

Doctoral students should complete dissertation proposal reporting in the third semester, deciding on the topic of doctoral dissertation. The dissertation should be completed in English. The main contents include the scientific basis for the topic chosen, the main contents, research plans and expected results. Students are required to present the proposal in PPT slides and deliver in English in 15-20 minutes; and question-answer session will last 5-10 minutes. The reviewer panel is made up of at least four or more professors. Students will obtain 2 credits by completing the whole series of activities.

3. 中期考核 (Mid-term Assessment)

中期考核一般在第四学期完成, 需提交《中期进展报告》、成绩单, 并参加答辩报告会。中期报告使用英文填写《中期进展报告》, 经导师签字确认。准备英文版 PPT, 用英文答辩、问答, 每位同学个人陈述 15-20 分钟, 评审专家提问环节 5-10 分钟。评审专家小组应由至少 5-7 名本学科或相关学科博士生导师组成。专家依据博士研究生的论文课题进展情况进行考核, 必要时可参阅其课程学习和选题报告情况进行综合评议, 并给出考核结果。

The mid-term assessment is generally completed in the fourth semester. It is required that students submit the “Med-term Progress Report” and transcripts. The report is completed in English and signed by the tutor. Students will deliver the depart in PPT slides and speak in English for 15-20 minutes and question-answer session will be in English and will last for 5-10 minutes. The reviewer panel is made up of at least 5-7 doctoral supervisors of the discipline undertaken and the related disciplines.

博士生中期考核实行分流机制, 中期考核合格者将获得相应学分。在本次考核中, 中期考核不合格者将被确定为初步分流对象; 凡培养计划中任何一门课程不及格, 或未完成之前的选题报告, 或未经学院批准无故不参加中期考核者将被直接认定为初步分流对象。被认定为初步分流对象的博士研究生仍可申请参加在随后一学期的补考核 (具体时间由学院确定)。凡在补考核中, 仍未通过者, 均视为补考核不通过, 并将被认定为最终分流对象。

博士生中期考核合格后记 6 学分。

The doctoral student's mid-term assessment is important. Those who pass the mid-term assessment will obtain 6 credits. Those who fail in the mid-term assessment will have a second chance. And if they still fail another time, they will be terminated from their doctoral program. Candidates who fail in any course work, or who hasn't completed completing dissertation proposal or who was absent from mid-term assessment without approval will be the students to be terminated from their program if they fail again in the second chance given.

4. 预答辩 (Pre-defense Report)

研究生完成学位论文及培养计划规定的内容后, 在规定的时间内提交学位申请书、学位论文、学习成绩单以及在学期间发表的学术论文和取得的研究成果证明, 在指导教师审查同意后组织预答辩。

After the completion of the dissertation, students are required to take part in the pre-oral dissertation

defense reporting meeting. Before the meeting, the doctoral candidates are to submit the degree application, dissertation, academic transcript, journal articles and the proof of research results to the office managing the graduate affairs.

5. 学位论文 (Dissertation)

对博士研究生，学位论文应在指导老师指导下由研究生本人独立完成，如果实际科研中存在多位指导老师，在学位论文上应同时署名多位导师。论文应在科学或专门技术上做出创造性成果，并在理论上或实际上，对社会主义建设有较大的意义；用于博士学位论文的工作时间一般应有2个学年左右。

The dissertation should be completed independently by the graduate candidates under the guidance of their supervisor. If there are two or more supervisors for a candidate, all of them will sign their names on the copyright page and innovation announcement page of the dissertation. The dissertation research should demonstrate the research has brought about innovative findings in science or technology, and the results are significant in theory or practice to the development of the country. The working time for doctoral dissertations researches generally is about 2 academic years.

学位论文内容一般应包括：独创性声明、保护知识产权声明、中英文摘要、目录、引言、正文（理论分析；实验装置和测试方法；对实验结果的分析、讨论与理论计算结果的比较）、结论、致谢、参考文献、攻读博士学位期间的研究成果及附录等。博士学位论文5万字左右。文字要语句精练通顺，条理分明，文字、图表清晰整齐。

The structure of the dissertation generally includes the following sections: statement of originality, statement of protection of intellectual property rights, abstract, contents page, introduction, body of the text (theoretical analysis; experimental setup and methods; analysis of experimental results, comparison of discussion and theoretical results), conclusion, acknowledgments, references, research results during the PhD study and appendices. The doctoral dissertation is about 50,000 words long. The dissertation must be read smooth, logical, and the graphs and characters must be clear in print.

六、培养环节时间节点(Timeline and milestones)

博士 Doctoral program	课程学习 Course Work	开题报告 Dissertation Proposal	中期考核 Mid-term Assessment	预答辩 Pre-oral dissertation defense reporting	论文答辩 Oral Dissertation Defense
时间点 Timeline	第一年 First Year	第三学期 Third Semester	第四学期 Fourth Semester	对应学位会指定日期之前 Before the designated date of the corresponding degree committee meeting	对应学位会指定日期之前 Before the designated date of the corresponding degree committee meeting
具体要求 Specific requirements	完成课程设置要求的所有内容 Complete all the course work	提交选题报告、通过答辩 Submit dissertation proposal	提交中期考核报告、通过答辩 Submit the mid-term assessment	完成通过所有课程、必修环节考核，满足所在中心毕业要求，完成博士学位论文初稿并通过学术不端检测 Complete all course work	完成预答辩，通过送审，经过答辩审批 Complete the pre-oral defense reporting, pass the dissertation reviewing, and pass the

博士 Doctoral program	课程学习 Course Work	开题报告 Dissertation Proposal	中期考核 Mid-term Assessment	预答辩 Pre-oral dissertation defense reporting	论文答辩 Oral Dissertation Defense
		and report it in a meeting to pass it	report and pass the oral defense	compulsory activities, fulfill other graduation requirements, complete doctoral dissertation and pass the academic misconduct test	oral dissertation defense

人文社会科学学院/马克思主义学院
*School of Humanities and Social Science /School of
Marxism*

人文社会科学学院/马克思主义学院

School of Humanities and Social Science /School of Marxism

“中国文化研究”和“中国改革与发展”国际硕士研究生中英文培养方案

International Graduate Programs in Chinese Culture Studies/ China's Reform and Development

一、培养目标 (Program Objectives)

“中国文化研究”硕士（国际招生，英文名为 Master of Arts in Chinese Culture Studies, 简称 MACC。）是西安交通大学人文学院专门为外国留学生设立的，以人文和社会科学教育为主要内容的硕士学位。本项目定位于构建国际学生了解中国、理解中国文化、增强中外文化交流的研究生教育平台，旨在培养充分理解理解中国文化与社会、具有较强的中国文化与社会研究能力。

Master of Arts in Chinese Culture Studies, referred to as MACC, is a master's degree program for international graduate students, with education of humanities and social sciences as the main content. The program aims to build a graduate education platform for international students to understand China and Chinese culture, and enhance cultural exchange between China and other countries. With the program, international graduate students will comprehensively understand Chinese culture and society and have better ability to study Chinese culture and the society.

“中国改革与发展”硕士是西安交通大学马克思主义学院专门为外国留学生设立的，以马克思主义理论教育为主要内容的硕士学位。本项目定位于构建国际学生了解中国、理解中国经济、文化和法制、增强中外文化交流的研究生教育平台。“中国文化研究”硕士和“中国改革与发展”硕士旨在培养能够在世界各地从事与中国有关的文化交流、外交、商贸、管理、教学等工作的复合型、国际型人才。

Master of China's Reform and Development is a master's degree program for international graduate students, with Marxist theoretical education as the main content. The program aims to build a graduate education platform for international students to understand China, understand China's economy, culture and legal system, and enhance cultural exchange between China and other countries.

Master of Arts in Chinese Culture Studies and the Master of China's Reform and Development will cultivate multi-disciplinary and international talents who can engage in cultural exchange, diplomacy, commerce, management and teaching related to China.

二、研究方向 (Research fields)

哲学、社会学、艺术学、马克思主义理论。

Philosophy, Sociology, Art and Marxist Theory

三、学习年限 (Length of programs)

国际硕士研究生学习年限一般为2年。

The length of Masters' programs is 2 years.

四、培养方式 (Program overview)

以立德树人为根本任务，已培养具有国际视野的创新性人才为目标的全日制在读硕士研究生。在导师的指导下选课、学习，完成培养计划中的所有学分要求。

Taking establishing morality and educating students as the fundamental task, we aim at cultivating full-time international graduate students with innovative mind and international vision. Under the guidance of their tutor, they select and study the courses, and complete all the credit requirements of the programs.

五、课程学习 (Course work)

根据《西安交通大学国际研究生按类培养实施细则》（以下简称《细则》）确定以下相关课程和学分要求。哲学、社会学和艺术学类学术学位硕士生课程应至少取得28学分，包括：公共课（汉语（I）2学分、中国概况（I）2学分、政治理论（A）2学分）6学分、专业学位课至少8学分，选修课选修的学分不低于14个学分。新港报告纳入国际留学生选修课，学生听够20场讲座后可记2学分。

Master's Programs in the areas of philosophy, sociology and arts require at least 28 credits for their course work. Required courses include *Comprehensive Chinese I* (2 credits), *The Outline of China I* (2 credits), *Political Theory A* (2 credits), degree courses (no less than 8 credits), and elective courses (no less than 14 credits) according to degree requirements. Innovation Harbour Lectures are included in elective courses for international students, 2 credits will be granted after attending 20 Lectures.

必修环节包括：学术活动（讲座）1学分、中期考核3学分。

Other compulsory activities include academic lectures (for masters) (1 credit) and mid-term assessment (3 credits).

中国文化研究硕士研究生课程设置的学分要求

课程类型 Course Type	序号 No.	课程编码 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
公共学位课 Public Degree Course	1	272003	LITE610112	中国概况（I） （The Outline of China I）	2	必修6学分 6 credits required
	2	272004	LITE610227	综合汉语（I） （Comprehensive Chinese I）	2	
	3	141007	MLMD600614	Governance Reform in China	2	

课程类型 Course Type	序号 No.	课程编码 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes	
专业学位课 Specialized Degree Course	1	103040	SOCL740110	中国当代社会 (Contemporary Chinese Society)	2	人文硕士必修 (马院选修)	至少修8学分 A minimum of 8 credits required
	2	103041	SOCL740210	性别与中国社会 (Gender and Chinese Society)	2		
	3	103042	PHLS740110	中国古代科技与文明 (Cultural Perspective of Science and Technology in Ancient China)	2		
	4	103043	PHLS740210	中国古代哲学世界 (Classical Chinese Philosophy)	2		
	5	143007	MLMD640214	中国改革发展专题研究 (A Study of China's Reform and Opening-up)	2	马院硕士必修 (人文选修)	
	6	143006	MLMD640114	一带一路倡议与中国开放格局研究 (The OBOR Initiative and the open policy of China)	2		
	7	143009	MLMD640414	当代中国国际战略与外交政策研究	2		

课程类型 Course Type	序号 No.	课程编码 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes	
				(Studies On Contemporary China's International Strategy and Diplomacy)			
	8	143008	MLMD640314	中国红色文化精神概论 (Chinese Red Culture Spirit)	2		
选修课 Elective Course	9	103044	SCTR740110	HSK 初级应试训练 (Primary Test Training)	2	不低于10学分 At least 10 credits	
	10	102213	CUIC712210	国际传播 (International Communication)	2		
	11	103046	LITE740110	中国古代诗歌 (Classical Chinese Poems)	2		
	12	103047	LITE740210	科幻与想象力 (Science Fiction and Imagination)	2		
	13	103051	ARTS740310	中国艺术史 (Chinese Art History)	2		
	14	103049	ARTS740110	中国音乐鉴赏 (Chinese Music Appreciation)	2		
	15	103050	ARTS740210	中国建筑与景观文化遗产保护 (Chinese Architecture and	2		

课程类型 Course Type	序号 No.	课程编码 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
				Landscape Cultural Heritage Protection)		
	16			在全校研究生课程目录中选修 (Elective Courses in the Curriculum for Graduates)	/	至多选修 4 学分 4 credits at most
必修环节	1	001997	BXHJ600399	学术活动(讲座)(硕) (Lectures) (for Masters)	1	必修 4 学分 4 credits required
	2	001983	BXHJ600799	中期考核 (Mid-term Assessment)	3	

六、培养环节 (Compulsory Activities)

1. 学术活动 (讲座) (Lectures)

国际硕士研究生学术活动 (讲座) 分为必听讲座和选听讲座。必听讲座包括“科学道德与学风建设”1 次、“职业生涯发展与规划导论”1 次; 选听讲座包括与学科紧密相关的“学科前沿系列专题讲座” (由各二级学科组织若干教授对本学科前沿知识进行讲座, 每个讲座由 5 个以上讲座组成) 一个系列和在全校范围内选听“学术讲座”1 次, 完成全部 8 个讲座后记 1 学分。

Master's students' academic activities (lectures) include compulsory lectures and elective lectures. The compulsory lectures include Scientific Morality and Construction of Study Style, Introduction to Career Development and Planning. The elective lectures include one series of Specialized Lectures on the Frontiers of the Discipline closely related to their courses (A number of professors give lectures on the frontier knowledge of their disciplines organized by the respective school, of which each lecture consists of more than 5 lectures) and one lecture in the whole university. Students get one credit after completing all eight lectures.

2. 开题报告 (Thesis Proposal Report)

开题报告的时间一般为入学后的第二学期内完成, 开题报告的形式为汇报答辩、专家问答式。开题报告应在导师指导下由研究生撰写, 经导师同意方可开题。

The time for completing the thesis proposal report is generally before the end of the second semester after their registration. The form of thesis proposal reporting is that the student delivers the report and answers the questions from the panel of experts. The report should be written by the graduate student under the guidance of their tutor. They can attend the reporting meeting with the consent of their tutors.

3. 中期考核 (Mid-term Assessment)

中期考核的时间一般为入学后的第三学期内完成, 具体参照西安交通大学《关于加强硕士生培养过程质量监控的若干规定》(西交研〔2009〕18 号) 执行。中期考核采取考核答辩、专家打分的方式。

The time for the mid-term assessment is generally within the third semester after their registration according to the regulations of *Several Provisions on Strengthening the Quality Control of Master Students' Cultivation Process of Xi'an Jiaotong University, the No.18 document by Graduate School of Xi'an Jiaotong University in 2009*. The mid-term assessment adopts the methods of assessment oral defense and experts scoring it.

4. 预答辩 (Pre-oral defense Reporting)

学位论文后在系 (所) 单位内进行预答辩的, 具体参照《西安交通大学学位授予工作暂行办法》(西交研〔2003〕14 号) 制定。

After completing the dissertation, the pre-oral defense reporting will be carried out in each school. The specific regulation is the Xi'an Jiaotong University Tentative Measures for the Granting of Degrees, the No.14 document by Graduate School of Xi'an Jiaotong University in 2003.

5. 学位论文 (Dissertation)

国际研究生完成学位论文的论文水平、论文开展时间、论文选题、申请学位的要求等与国内研究生保持一致。(参照《西安交通大学学位授予工作暂行办法》(西交研〔2003〕14 号))

The requirements for the international graduate students to complete their dissertation, include the level of the dissertation, the completion time of the dissertation, the topic selection of the dissertation, and their applying for a degree are consistent with the domestic graduate students. The specific documents e is the Xi'an Jiaotong University Tentative Measures for the Granting of Degrees, the No.14 document by Graduate School of Xi'an Jiaotong University in 2003.

七、培养环节时间节点 (Timeline and milestones)

学位类型 Program Type	课程学习 Course Work	开题报告 thesis proposal	中期考核 Mid-term Assessment	预答辩 Pre-oral thesis defense meeting	论文答辩 Oral Thesis defense)
硕士 Master Program	第 2 学期内全部完成 first two semesters	第 2 学期结束前完成 end of the second semester	第 3 学期结束前完成 end of the third semester	第 4 学期初完成 beginning of the fourth semester	第 4 学期的 5 月中旬完成 mid-May of the fourth semester

生命科学与技术学院

School of Life Science and Technology

生命科学与技术学院

生物医学国际研究生中英文培养方案

Biomedical International Graduate Programs

一、培养目标 (Program objectives)

培养德、智、体全面发展，在生物医学领域具有创新能力的高层次科学研究人才，学生应满足以下要求：

To cultivate high-level scientific research talents with comprehensive development in morality, intellectual and physical development and innovative ability in the field of biomedicine, and specifically, students will achieve the following:

1. 具备良好的个人素养、社会公德和责任感，热爱自己的专业。

Have a good personal qualities, social morality and sense of responsibility, and love their academic specializatio.

2. 掌握坚实宽广的生物医学基础理论和系统深入的专门知识，熟悉所从事研究方向的科学技术发展动态。

Master solidly and broadly the basic theory of biomedicine and systematic detailed specialized knowledge, and be familiar with the progress of development of science and technology in the research area studied.

3. 具有独立进行科学研究的知识、技能、洞察力和理解力，能独立从事生命医学领域及相关交叉学科方向科学研究，取得创新性的研究成果。

With knowledge, skills, insight and understanding needed for scientific research, he can independently conduct scientific research in the field of life science and related interdisciplinary research, and achieve innovative research results.

二、研究方向 (Research fields)

1. 生物医学工程 (Biomedical Engineering) ;
2. 生物学 (Biology) 。

三、学习年限 (Length of programs)

国际硕士研究生学习年限一般为 2-3 年，国际博士研究生学习年限一般为 3-5 年，经批准可适当延长，延长时间不超过 1 年。

The length of Masters' programs is 2 to 3 years, and that of doctoral programs is 3 to 5 years. Prolongation (no more than one year) has to be approved by the university.

四、培养方式 (Program overview)

1. 国际研究生入学后，由指导教师（导师）负责管理，导师应全面关心国际研究生的成长，

严格要求和管理，注重在各个环节上培养国际研究生严谨与实事求是的治学态度。

After the international graduate students get registered, the tutor is responsible for management. The tutor should pay full attention to the development of international t graduate students, and pay attention to cultivating them to develop rigorous and down-to-earth work style and attitude.

2. 在指导上采取以导师为主、导师负责和专业系、所集体培养相结合的方法。

In guidance, the tutor takes the main responsibility combined with collective management of the respective department and institute.

3. 导师所在系、所应在国际研究生培养计划的执行、学位论文选题、科研工作及论文撰写、预答辩和答辩等各个环节上积极发挥集体培养的优势并起到监控作用，以提高国际研究生的培养质量。

The department and the institute where the tutor works should closely monitor the students in course work, research and thesis or dissertation writing, pre-oral defense reporting and oral thesis or dissertation defense so as to improve the quality of education.

4. 导师应根据本培养方案和因材施教的原则，于入学后 1 周内，制定出具体培养计划。检查并督促研究生的课程学习，指导研究生的论文选题、文献查阅、调研、科研工作、论文撰写和答辩。

The tutor should help the students to formulate a specific training plan within one week after the students get registered. Students have to engage in active course work, and the tutor must help the students with thesis or dissertation topic selection, literature search, surveying and other research work.

5. 国际研究生培养实行资格考核和中期考核，考核由本学科“一级学科研究生培养与学科建设领导小组”组织。中期考核通过，硕士记 3 学分，博士记 6 学分，中期不通过者，硕士予以退学处理，博士可以参加下学期的中期考核，再次考核不通过者予以转硕或退学处理。

The international postgraduate students are subject to qualification assessment and mid-term assessment organized by the “First-level Discipline Directorial Group for Graduate Student Training and Discipline Construction”. When they have their mid-term assessment passed, they get 3 credits for Master's program, or 6 credits for Doctoral programs. Those who do not pass the mid-term assessment will be terminated from their Master's program; but for doctoral candidates, they can re-take the mid-term assessment next semester, and the students who fail again can transfer to the master's program or be terminated from the doctoral program.

6. 研究生学位论文要由学生独立完成。研究生在完成所有课程学习、实践环节、学位论文并达到学校所要求的毕业和学位申请条件后方可申请毕业答辩和学位答辩，答辩通过并经校学位委员会审核通过后获得毕业证书和学位证书。

The graduate thesis/dissertation should be completed independently by the students. When students satisfy all requirements for graduation and degree granting, they can apply for oral defense of their thesis/dissertation. After they pass the oral defense, they can apply for granting a degree and graduation certificate.

五、课程学习 (Course work)

(一) 国际硕士研究生 (Master programs)

学术学位硕士生的课程学习应至少取得 24 学分，包括：公共课（汉语（I）2 学分、中国概

况（I）2学分）4学分、专业学位课至少8学分，选修课至少12学分。新港报告纳入国际留学生选修课，学生听够20场讲座后可记2学分。

The academic Master's programs in Science and Engineering require at least 24 credits for course work. Required courses include *Comprehensive Chinese I* (2 credits), *The Outline of China I* (2 credits), degree courses (no less than 8 credits), and elective courses (no less than 12 credits). Innovation Harbour Lectures are included in elective courses for international students, 2 credits will be granted after attending 20 Lectures.

必修环节包括：学术活动（讲座）1学分、中期考核3学分。

Other compulsory activities include academic lectures (Masters) (1 credit) and mid-term assessment (3 credits).

国际硕士研究生课程设置和学分要求

Curriculum Design and Credit Requirements of Masters Programs

课程类型 Course Type	序号 No	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
公共学位课 Public Course	1	272003	LITE610112	中国概况（I） （The Outline of China I）	2	必修4学分 4 credits required
	2	272004	LITE610227	综合汉语（I） （Comprehensive Chinese I）	2	
专业学位课 Degree Course	1	132048	BICH710113	高级生物化学 Advanced Biochemistry	2	至少修8学分 A minimum of 8 credits required
	2	133006	BIOL640213	线粒体生物学 Mitochondrial Biology and Medicine	2	
	3	133008	BIME640113	医学统计与临床研究 方法 Medical Statistics and Clinical Research Methods	2	
	4	133010	BIME640313	生物医学超声 Biomedical Ultrasound	2	
选修课 Elective Course	1	133011	BIOL740113	疾病基因组学 Disease Genomics	2	至少修12学分 A minimum of 12 credits required
	2		BIOL740313	高级神经生物学	2	

课程类型 Course Type	序号 No	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
		133013		Advanced Neurobiology		
	3	133012	BIOL740213	蛋白质组学 Proteomics	2	
	4	133015	BIME740213	光学纳米生物传感 Optical Nano-biosensing	2	
	5	133014	BIME740113	功能成像与分子影像 Functional Imaging and Molecular Imaging	2	
	6	133016	BIME740313	康复心理学 Rehabilitation Psychology	2	
	7	133017	BIME740413	机器学习 Machine Learning	2	
	必修环节 Compulsory Activities	1	001997	BXHJ600399	学术活动(讲座)(硕) (Lectures) (Masters)	
2		001983	BXHJ600799	中期考核 (Mid-term Assessment)	3	

（二）国际博士研究生(Doctoral Programs)

学术学位博士生课程学习应至少取得12学分，包括：公共课（汉语（II）2学分、中国概况（II）2学分）4学分、专业学位课至少4学分，选修课至少4学分。新港报告纳入国际留学生选修课，学生听够20场讲座后可记2学分。

The academic doctoral programs require at least 12 credits for course work. Required courses include *Comprehensive Chinese II* (2 credits), *The Outline of China II* (2 credits), degree courses (no less than 4 credits), and elective courses (no less than 4 credits). Innovation Harbour Lectures are included in elective courses for international students, 2 credits will be granted after attending 20 Lectures.

必修环节包括：学术活动（讲座）2学分、开题报告2学分、中期考核6学分。

Other compulsory activities include academic lectures (Doctoral) (2 credits), dissertation proposal (2 credits), and mid-term assessment (6 credits).

国际博士研究生课程设计和学分要求
Curriculum Design and Credit Requirements of Doctoral Programs

课程类型 Course Type	序号 No	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
公共学位课 Public Course	1	272003	ENGL602312	中国概况 (II) (The Outline of China II)	2	必修 4 学分 4 credits required
	2	272004	LITE600127	综合汉语 (II) (Comprehensive Chinese II)	2	
专业学位课 Degree Course	1	132067	BIOL610113	高级分子细胞生物学 Advanced Molecular Cell Biology	2	至少修 4 学分 A minimum of 4 credits required
	2	133009	BIME640213	纳米医学 Nanomedicine	2	
选修课 Elective Course	1	133011	BIOL740113	疾病基因组学 Disease Genomics	2	至少修 4 学分 A minimum of 4 credits required
	2	133012	BIOL740213	蛋白质组学 Proteomics	2	
	3	133006	BIOL640213	线粒体生物医学 Mitochondrial Biology and Medicine	2	
	4	132048	BICH710113	高级生物化学 Advanced Biochemistry	2	
	5	133013	BIOL740313	高级神经生物学 Advanced Neurobiology	2	
	6	133008	BIME640113	医学统计与临床研究方法 Medical Statistics and Clinical Research Methods	2	
	7	133010	BIME640313	生物医学超声 Biomedical Ultrasound	2	

课程类型 Course Type	序号 No	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
	8	133015	BIME740213	光学纳米生物传感 Optical Nano-biosensing	2	
	9	133014	BIME740113	功能成像与分子影像 Functional Imaging and Molecular Imaging	2	
	10	133016	BIME740313	康复心理学 Rehabilitation Psychology	2	
	11	133017	BIME740413	机器学习 Machine Learning	2	
必修环节 Compulsory Activities	1	001999	BXHJ800399	学术活动(讲座) (博) (Lecture)(Doctor)	2	必修 10 学分 10 credits required
	2	001986	BXHJ800499	开题报告 Dissertation proposal	2	
	3	001994	BXHJ800199	中期考核 (Mid-term Assessment)	6	

六、培养环节 (Compulsory Activities)

1. 学术活动 (讲座) (Lectures)

国际硕士研究生学术活动 (讲座) 分为必听讲座和选听讲座。必听讲座包括“科学道德与学风建设”1 次、“职业生涯发展与规划导论”1 次; 选听讲座包括与学科紧密相关的“学科前沿系列专题讲座” (由各二级学科组织若干教授对本学科前沿知识进行讲座, 每个讲座由 5 个以上讲座组成) 一个系列和在全校范围内选听“学术讲座”1 次, 完成全部 8 个讲座后记 1 学分。

Master students are required to attend 8 lectures, including 2 compulsory lectures (one on Scientific Morality and Construction of Study Style, and one on Introduction to Career Development and Planning), 5 lectures in series regarding discipline-specific frontiers development (organized by respective individual schools), and 1 elective within the university. Students will obtain 1 credit with full attendance to the 8 lectures.

国际博士研究生学术活动 (讲座) 分为必听讲座和选听讲座。必听讲座为“科学道德与学风建设”; 选听讲座包括与学科紧密相关的“学科前沿系列专题讲座” (由各二级学科组织若干教授对本

学科前沿知识进行讲座，每个讲座由 5 个以上讲座组成）一个系列和在全校范围内选听“学术讲座”1 次，自己公开讲座 1 次，完成后记 2 学分。

Doctoral students are required to attend 7 lectures, including a compulsory lecture (one on Scientific Morality and Construction of Study Style), 5 lectures in a series regarding discipline-specific frontiers information (organized by the respective individual schools), and 1 elective within the university. In addition, they are also required to give a lecture. Students will obtain 2 credits by completing the whole series of activities.

2. 开题报告 (Thesis/Dissertation Proposal)

硕士研究生在第三学期结束前完成开题报告，两年毕业的硕士生应在第二学期结束前完成开题报告。研究生入学后应在导师指导下，查阅文献资料，了解学科现状和发展，尽早确定学位论文方向，制定论文工作计划，做好开题报告准备。

The Master's graduate students complete the thesis proposal before the end of the third semester. The Master's students who will graduate in two years should complete the thesis proposal before the end of the second semester. After entering the university, graduate students start literature search, understand the current situation and development of the discipline, determine the topic of the thesis as soon as possible, formulate the thesis research plan, and prepare for the thesis proposal.

硕士研究生开题报告的主要内容包括：选题的科学依据、主要研究内容和方案、研究计划及预期进展。开题报告会由学院或系、所统一组织。硕士生在参加论文选题报告会前应填写《硕士研究生学位论文选题报告》并提交学院。参加选题报告会的评审专家组一般由 3-5 名副高以上（含副高）专家组成。评审专家根据硕士生选题报告的情况给出评审结果，评审结果分“通过”、“修改后通过”或“不通过”三种情况。凡是获得“通过”的硕士生可以按照选题报告研究内容开展研究工作；凡是“修改后通过”的硕士生需按照专家意见修改后开展研究工作；凡是“不通过”的硕士生必须重新开展选题研究，三个月内再次申请进行选题报告，并被确定为质量跟踪对象。

The main contents of the Master's thesis proposal include the scientific basis of the topic selected, main research content, the research plan and the expected results. The thesis proposal will be organized by the inspective school or department. Master's graduate students should fill out the "Master's Thesis Proposal" and submit it to the school before participating in the thesis proposal reporting meeting. The panel of experts participating in the thesis proposal reporting meeting will generally consist of 3-5 experts with academic titles of or above associate professor. The experts will evaluate whether the proposal is qualified or not and label the proposal in one of the three levels: "pass", "pass after improvement" or "Failure". Those who get a "pass" can continue with the research; those who get a "pass after improvement" can continue on with their research after they improve their proposal according to the opinions or suggestions about their proposal; those who get a "failure" will retake the thesis proposal reporting within three months, and will be the target to follow for quality concern.

博士研究生在第二学年内完成开题报告。研究生入学后应在导师指导下，查阅文献资料，了解学科现状和发展，尽早确定学位论文方向，制定论文工作计划，做好开题报告准备。

The doctoral students shall complete the dissertation proposal within the second academic year. After getting registered, students should start literature search, understand the current situation and development of the discipline, determine the area of the dissertation as soon as possible, formulate the work plan for the dissertation, and prepare for the dissertation proposal.

博士研究生开题报告包括：文献综述、选题背景及意义、研究基础、研究内容、工作难点及特色、预期成果以及可能产生的创新点等。开题报告应以学术活动的形式在学院内公开进行，由导师及导师团队成员为主体组成的考核小组（至少 3 名）进行评审。开题报告考核小组鼓励吸收有关教师和研究生参加，交叉培养项目以及跨学科的论文选题应聘请相关学科的专家参加。开题报告由院系组织，一般应在第二学年内完成，具体时间由导师或院系决定，但开题报告通过至申请论文答辩时间一般不少于两年。

The doctoral graduates' dissertation proposal includes literature review, background and significance of the topic, research basis, research content, difficulties and characteristics, expected results and possible innovations. The report shall be open to the public in the form of an academic activity, and the assessment team (consisting of at least 3 members, including the tutor and the experts from the tutor team) shall be review the proposal. The report assessment team encourages the participation of relevant teachers and graduate students; for cross-cultivation projects and interdisciplinary dissertation proposals experts from the relevant disciplines should be included. The reporting activity is organized by the inspective department and should be completed in the second year. The specific time is determined by the tutor or the department, but the time from passing the dissertation proposal to application for degree is generally at least two years.

3. 中期考核 (Mid-term Assessment)

一般硕士研究生中期考核应在第四学期末完成；两年毕业的硕士生中期考核应在第三学期末完成。博士研究生自第三学年起至第四学年末完成博士中期考核。中期考核具体要求按照《西安交通大学关于加强硕士生培养过程质量监控的若干规定》（西交研〔2009〕18 号）执行。

The mid-term assessment of for master's graduate students should be completed at the end of the fourth semester; the mid-term assessment for students who will graduate in two years should be completed at the end of the third semester. Doctoral students complete the mid-term doctoral assessment from the third year to the end of the fourth year. The specific requirements for the mid-term assessment are in accordance with the "Several Provisions of Xi'an Jiaotong University on Strengthening the Quality Control of Master Students' Training Process" (Xi Jiaoyan [2009] No. 18).

4. 预答辩 (Pre-oral Thesis/Dissertation Defense)

国际研究生完成学位论文后须在系（所）单位内组织预答辩。预答辩具体要求按照《西安交通大学学位授予工作暂行办法》（西交研〔2003〕14 号）执行。

After completing the dissertation, international graduate students must undertake a pre-oral thesis/dissertation defense meeting in the department. The specific requirements for pre-oral defense activity are implemented in accordance with Xi'an Jiaotong University Tentative Measures for the Granting of Degrees (Xi Jiaoyan [2003] No. 14).

5. 学位论文 (Thesis/Dissertation)

对国际研究生完成学位论文和导师指导情况提出相关要求，基本内容应包含：论文水平、论文开展时间、论文选题、申请学位的要求等。（参照《西安交通大学学位授予工作暂行办法》（西交研〔2003〕14 号））

Relevant requirements for the completion of dissertations include the level of the thesis, the starting and closing dates of the thesis/dissertation, the topic, and the requirements for applying for a degree.

(Refer to the Xi'an Jiaotong University Tentative Interim Measures for the Granting of Degrees (Xi Jiaoyan [2003] No. 14))

硕士学位论文的基本要求如下:

The basic requirements of the Master's thesis are as follows:

(1) 应在指导教师指导下, 由研究生本人独立完成;

The graduate student shall complete the thesis independently under the guidance of the instructor;

(2) 论文有自己的新见解, 并力求在理论上或实际上, 对社会主义建设具有一定的意义;

The thesis has its own new insights and strives to have significance in theory or in practice for country's development;

(3) 为保证论文质量, 论文工作必须有一定工作量, 在论文题目确定后, 用于硕士学位论文工作的时间一般应有 1 个学年左右。

In order to ensure the quality of the thesis, the work of the thesis must be adequate in workload. After the topic of the thesis is determined, the time for the work of the Master's thesis should generally be about one academic year.

博士学位论文的基本要求如下:

The basic requirements of the doctoral dissertation are as follows:

(1) 应在指导老师指导下, 由研究生本人独立完成;

The graduate student shall complete the thesis independently under the guidance of the instructor;

(2) 论文应在科学或专门技术上做出创造性成果, 并在理论上或实际上, 对社会主义建设有较大的意义;

The thesis should make innovative achievements in science or specialized technology, strives to have significance in theory or in practice for country's development;

(3) 用于博士学位论文的工作时间一般应有 2 个学年左右。

The working time for doctoral dissertations should generally be around 2 academic years.

博士生提交的符合学位申请条件的论文至少 1 篇必须正式出版; 本规定所称“学术论文”是指申请人为第一作者或第二作者(本人为第二作者时, 第一作者应为其导师), 且西安交通大学为第一署名单位的学术研究论文(不包含综述、摘要类); 本规定所称“科研成果”是指西安交通大学为第一完成单位的科研成果; 本规定中的 SCI/SSCI/AHCI、国外期刊 SCI/EI/IM 收录论文以发表在收录源期刊为准, 国内 EI/IM 均以收录后为准, CSSCI 源期刊论文以正式发表为准。

At least one paper submitted by a doctoral student in accordance with the conditions for applying for a degree must be officially published; the term “academic paper” as used in this regulation refers to the applicant being the first author or the second author (when the second author is the author, the first author should be one from Xi'an Jiaotong University which is the first signing unit (excluding the summary and abstract categories); the term “scientific research results” as mentioned in this regulation refers to the scientific research achievements of Xi'an Jiaotong University as the first completing unit; The SCI/SSCI/AHCI and foreign journals SCI/EI/IM papers are recognized according to the source of journal. The domestic EI/IM is subject to the inclusion, and the CSSCI source journal papers are subject to official publication.

本规定中的“全国核心期刊”、“国际知名学术刊物”、“高水平国际会议”以及“最有学术影响力的国际期刊”由各学院提出, 研究生院组织专家审核后确定, 并定期修订。

The “National Core Journals”, “Internationally Recognized Academic Journals”, “High-level International Conferences” and “The Most Academically Influential International Journals” in this regulation are proposed by the schools, and are reviewed by the graduate school experts and regularly revised.

本规定中的盲审是指在学位论文的评审过程中, 隐去被评审者及其指导老师、评审专家的姓名, 使双方互不知晓。

The blind review stipulated in this regulation refers to the practice that the name of the reviewers and their tutor are kept hidden during the reviewing process, so that the two parties do not know each other.

为确保博士学位授予质量, 研究生院负责对博士学位论文实行盲审。申请者须提交送审论文一式三份。具体规定如下:

In order to ensure the quality of the doctoral degree granting, the graduate school is responsible for the blind review of the doctoral dissertation. Applicants must submit a copy of the paper for approval in triplicate. The specific provisions are as follows:

(1) 在所属学科最有学术影响力的国际期刊上发表了学术论文或在国际知名学术刊物上发表 3 篇学术论文的博士生, 其三份送审论文中的两份由所在学院送审, 其余一份实行盲审;

For a doctoral student who has published academic papers on the Most Academically Influential International Journals or published three academic papers on internationally renowned academic journals, two of the three submitted papers would be sent out by the school for reviewing, and the last one is sent out by the graduate school for a blind review;

(2) 凡是满足《西安交通大学关于研究生学位申请的若干规定》(西交研〔2013〕23 号) 第二条第(一)、(二)款规定的博士生, 其三份送审论文中的一份由所在学院送审, 其余两份实行盲审;

For any doctoral student who meets the requirements of paragraphs (1) and (2) of Article 2 of these Provisions (the " Xi'an Jiaotong University Several Provisions on Application for Doctoral Degrees " (Xi Jiao Yan [2013] No. 23)), one of the 3 submitted copies of dissertation will be sent out by the school while the rest 2 copies will be sent out the graduate school for blind review;

(3) 凡是满足《西安交通大学关于研究生学位申请的若干规定》(西交研〔2013〕23 号) 第二条第(三)款规定的博士生, 其三份送审论文全部实行盲审。

For doctoral students who meet the requirements of paragraph (3) of Article 2 of these Provisions (the " Xi'an Jiaotong University Several Provisions on Application for Doctoral Degrees " (Xi Jiao Yan [2013] No. 23)), all three copies will be sent out for blind review.

七、培养环节时间节点(Timeline and milestones)

学位类别 Program Type	课程学习 Course Work	开题报告 Thesis/dissertation proposal	中期考核 Mid-term Assessment	预答辩 Pre-oral defense Reporting	论文答辩 Oral Thesis/Dissertation Defense
硕士 Master's program	第一学年 First year	第二学年上半学期 First half of second year	第二学年下半学期 Second half of second year	第三学年下半学期 Second half of the third year	第三学年下半学期 Second half of third year
博士 Doctoral program	第一学年 First year	第二学年 Second year	第三学年起至第四学年 From third year to fourth year	第四学年下半学期 Second half of fourth year	第四学年下半学期 Second half of fourth year

医学部

Health Science Center

医学部

Health Science Center

医学基础类硕士学位（学术型）国际研究生培养方案

International Academic Master's Degree Programs in Preclinical Medicine

一、培养目标（Program objectives）

1. 具备较强的研究能力，能够独立从事本学科科学研究工作。
Students have a strong ability to conduct scientific research independently in the discipline.
2. 掌握本学科的基础理论和系统的专业知识。
Students master the basic theory and the systematic specialized knowledge of the discipline.
3. 具有一定的写作能力和进行国际学术交流的能力。
Students have the ability to write and to communicate in international academic settings.

二、研究方向（Research fields）

1. 生物学（Biology）
2. 基础医学（Basic Medicine）
3. 公共卫生与预防医学（Public Health and Preventive Medicine）
4. 药学（Pharmaceutical Science）
5. 护理学（Nursing）

三、学习年限（Length of programs）

国际硕士研究生学习年限一般为 2-3 年，经批准可适当延长，延长时间不超过 1 年。

The length of Masters Programs is 2 to 3 years. The prolongation (no more than one year) will have to be approved by the university.

四、培养方式（Program Overview）

1. 实行导师指导和课题组集体培养相结合的方式。
Tutor-guidance combined with collection guidance of research project team is adopted in directing the students.
2. 课程学习可采用上课、自学、辅导、讨论等方式。
The course work is conducted in the form of classroom learning, self-paced study, tutoring, discussions, etc.
3. 导师应根据本培养方案和因材施教的原则，于硕士生入学后 2 个月内，制定出具体的培养

计划。

The tutor should develop a specific training plan within 2 months after the student start the Master's degree program according to the program requirements and the principle of teaching students in accordance with their aptitude.

4. 开题应注重培养硕士生的创新能力及科研能力，在导师的指导下，通过查阅文献、调查研究后由本人确定。开题报告必须有详细记录，记录填写在《西安交通大学研究生开题报告》中。

The dissertation proposal should focus on training the students' innovative ability and scientific research ability. The dissertation proposal should be completed by the student after literature search and surveys under the guidance of the tutor. The dissertation proposal must be completed with all the necessary details and students will complete "Xi'an Jiaotong University Thesis/Dissertation Proposal"

5. 硕士生应参加校、院组织的研讨会或其它学术活动。根据科研工作的需要，可适当安排外出参加有关学术活动。

Master's graduate students should attend seminars or other academic activities organized by the university and the school. The students can also be arranged to participate in relevant academic activities according to the needs of scientific research.

6. 硕士生应在第四学期结束前完成中期考核，考核不通过者，可以参加下学期的中期考核。

Masters students should complete the mid-term assessment before the end of the fourth semester. If the students fail to pass the assessment, they can re-take it next semester.

五、课程学习(Courses)

人文社科及医学类（除哲学、政治学 and 经济学类专业）学术学位硕士生应至少取得 26 学分，包括：公共课（汉语（I）2 学分、中国概况（I）2 学分）4 学分、专业学位课至少 8 学分，选修课学分根据专业学位课、总学分要求设置。新港报告纳入国际留学生选修课，学生听够 20 场讲座后可记 2 学分。

必修环节包括：学术活动（讲座）1 学分、中期考核 3 学分。

The academic Master's degree program of medicine requires at least 26 credits, including public course (*Comprehensive Chinese I*, 2 credits, *The Outline of China I*, 2 credits, 4 credits in total), professional degree courses (no less than 8 credits), and elective courses (their credits are set up according to the total credits). Innovation Harbour Lectures are included in elective courses for international students, 2 credits will be granted after attending 20 Lectures.

Other compulsory activities include academic lectures (1 credits), and mid-term assessment (3 credits).

国际硕士研究生课程设计和学分要求

Curriculum Design and Credit Requirements for Master Programs

课程类型 Course Type	序号 No.	课程编码 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
公共学位课 Public Course	1	272003	LITE610112	中国概况 (I) (The Outline of China I)	2	必修 4 学分 4 credits are required
	2	272004	LITE610227	综合汉语 (I) (Comprehensive Chinese I)	2	
部公共学位课 School offered Public Course	1	152050	PUBH610715	医学统计学 Medical Statistics	2	必修 5 学分 5 credits are required
	2	152197	BIOL611115	医学分子生物学 Medical Molecular Biology	2	
	3	152120	BASM612015	医用生物信息基础 Introduction to Bioinformatics and Med-informatics	1	
专业基础课 Basic Degree Course	1	153011	BASM640115	医学免疫学 Medical Immunology	2	生物学/基础医学专业 (必修 6 学分) Biology/ Basic Medicine (6 credits are required)
	2	153012	BASM640215	人类分子遗传学 Human Molecular Genetics	2	
	3	152075	BASM611715	医学科学研究导论 Introduction of the Research in Medical Science	2	
	1	153030	PUBH640115	现代流行病学 Modern Epidemiology	2	公共卫生与预防医学专业 必修 6 学分 Public Health and Preventive Medicine (6 credits are required)
	2	152049	PUBH610615	数据管理与分析 Management and Analysis of Data	2	
	3	152075	BASM611715	医学科学研究导论 Introduction of the Research in Medical Science	2	

课程类型 Course Type	序号 No.	课程编码 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
	1	153019	PHMA640115	生物分析技术 Bioanalytical Technology	2	药学专业 (必修 6 学分) Pharmaceutical Science (A minimum of 6 credits are required)
	2	153020	PHMA640215	现代分离技术 Modern Isolation Technology	2	
	3	152075	BASM611715	医学科学研究导论 Introduction of the Research in Medical Science	2	
	1	153030	PUBH640115	现代流行病学 Modern Epidemiology	2	护理学专业 (必修 6 学分) Nursing (6 credits are required)
	2	153022	NURS640115	护理理论 Nursing Theory	2	
	3	153023	NURS640215	护理学研究方法 Nursing Research	2	
专业必修课 Compulsory Degree Course	1	152088	BIOL710515	生理学 (2) Physiology(II)	2	生物学专业 (根据学生的专业选修 2 学分) Biology (2 credits are required according to students' major)
	2	152089	BIOL710615	遗传学 (2) Medical Genetics(II)	2	
	3	152090	BIOL710715	细胞生物学 (2) Cytobiology (II)	2	
	4	152091	BIOL710815	神经生物学 (2) Neurobiology (II)	2	
	5	152092	BIOL710915	生物化学与分子生物学 (2) Biochemistry and Medical Molecular Biology(II)	2	
	6	152188	BIOL711615	生物物理学 (2) Biophysics(II)	2	
	1	152082	BASM710115	人体解剖与组织胚胎学	2	基础医学专业

课程类型 Course Type	序号 No.	课程编码 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
				(2) Human Anatomy, Histology and Embryology(II)		(根据学生的专业选修2学分)
	2	152086	BASM710415	免疫学(2) Immunology(II)	2	Basic Medicine (2 credits are required according to students' major)
	3	152083	BASM710215	病原生物学(2) Pathogenic Biology(II)	2	
	4	152084	BASM710315	病理学与病理生理学(2) Pathology & Pathophysiology(II)	2	
	5	152085	FORM710115	法医学(2) Forensic Medicine(II)	2	
	6	152183	STOM710315	口腔生物医学(2) Oral Biomedicine(II)	2	
	1	152096	PUBH710415	流行病学与卫生统计学(2) Epidemiology and Health Statistics(II)	2	
	2	152095	PUBH710315	劳动卫生与环境卫生学(2) Occupational and Environmental Health(II)	2	
	3	152093	PUBH710115	营养与食品卫生学(2) Nutrition and Food Hygiene(II)	2	
	4	152094	PUBH710215	儿少卫生与妇幼保健学(2) Maternal and Child and Adolescent Health(II)	2	
	5	152132	PUBH710515	卫生毒理学(2) Health Toxicology(II)	2	
	1	152131	PHMA710615	药物化学(2) Medicinal Chemistry	2	药学专业

课程类型 Course Type	序号 No.	课程编码 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
				(II)		(根据学生的专业选修2学分)
	2	172014	PHMA710515	药剂学(2) Pharmaceutics(II)	2	Pharmaceutical Science (2 credits are required according to students' major)
	3	172005	PHMA710415	生药学(2) Pharmacognosy(II)	2	
	4	172004	PHMA710315	药物分析学(2) Pharmaceutical Analysis(II)	2	
	5	152133	PHMA710215	微生物与生化药学(2) Microbial and Biochemical Pharmaceutics(II)	2	
	6	152087	PHMA710115	药理学(2) Pharmacology(II)	2	
	7	152165	PHMA710715	天然药物化学(2) Chemistry of Natural Products(II)	2	
	8	152166	PHMA710815	药事管理学(2) Pharmacy Administration(II)	2	
	1	152107	NURS710115	护理学(2) Nursing Science(II)	2	
选修课 Elective Course			/	课程目录上选修 Choosing course on course catalog	≥9	≥9学分 (A minimum of 9 credits are required)
必修环节 Compulsory Activities	1	001997	BXHJ600399	学术活动(讲座)(硕) (Lectures)(Masters)	1	必修4学分 (4 credits are required)
	2	001983	BXHJ600799	中期考核	3	

课程类型 Course Type	序号 No.	课程编码 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
				(Mid-term Assessment)		

六、培养环节 (Compulsory Training Activities)

1. 学术活动 (讲座) (Lectures)

国际硕士研究生学术活动 (讲座) 分为必听讲座和选听讲座。必听讲座包括“科学道德与学风建设”1次、“职业生涯发展与规划导论”1次；选听讲座包括与学科紧密相关的“学科前沿系列专题讲座” (由各二级学科组织若干教授对本学科前沿知识进行讲座，每个讲座由5个以上讲座组成) 一个系列和在全校范围内选听“学术讲座”1次，完成全部8个讲座后记1学分。

There are compulsory academic lectures and elective ones for the international master's students. The compulsory lectures include one lecture on "Scientific Morality and Construction of Study Style" and one on "Introduction to Career Development and Planning". The elective lectures include one lecture series on the frontier of discipline", and one lecture series. The "series lectures on the frontier of discipline" are held by several professors organized by every second-level discipline. Every serieallecture consists of more than 5 lectures, by which the professors introduce the frontier knowledge in their discipline. One credit will be granted to the students when they complete all lectures.

2. 开题报告 (Dissertation Proposal)

硕士研究生要求在第三学期内完成开题报告。开题应注重培养研究生的创新能力和科研能力，在导师的指导下，通过查阅文献、调查研究后由本人确定。研究生在确定开题后，应写出文献综述，并在科室内做开题报告，报告其选题依据和研究工作计划；与会者应对开题的创新性，科研设计的严密性，方法和指标选择的科学性等进行评论。开题报告必须有详细记录，记录填写在《西安交通大学研究生开题报告》中。

The thesis proposal should be completed during the third semester. The thesis proposal should be determined by the students themselves after the literature survey and the project investigation on the guidance of their tutor. The innovative ability and scientific research ability of graduate students should be trained by the thesis proposal. The doctoral students should write a review, and report the dissertation proposal in the department to introduce the research background and topic basis, and research working plan. The participants should comment on the innovation of research idea, the preciseness of project design, and the scientificity of methods and indicator selection. Students must complete "Graduate Dissertation Proposal of Xi'an Jiaotong University".

3. 中期考核 (Mid-term Assessment)

中期考核由5名副高职称以上 (含副高) 导师组成硕士生中期考核小组。硕士研究生中期考核主要是对硕士研究生完成的论文工作进展情况进行检查和评议，综合考察研究工作的成果，中期考核的主要内容包括：论文研究内容简介、研究进展情况、下一步的工作计划等。

中期考核具体要求参照《关于加强硕士生培养过程质量监控的若干规定》 (西交研 [2009] 18号) 执行。

The mid-term assessment should be conducted by an assessment team which consists of five mentors who are at least associate professors. They will check and evaluate the thesis progress of the Master's students, check the results of research work comprehensively. The main contents of the mid-term assessment include a brief introduction of research content, the research progress, and the next work plan.

The specific requirements for the mid-term assessment shall be implemented in accordance with the "Several Provisions on Strengthening the Quality Control of Master Students' Training Process" (Xi Jiao Yan [2009] No. 18).

4. 预答辩 (Pre-oral thesis/dissertation defense)

硕士研究生完成学位论文后必须在系 (所) 单位内组织预答辩。

After completing the dissertation, the master student must conduct a pre-oral defense of the thesis in the department.

预答辩由系 (所) 主任 (所长) 主持，研究生报告自己的研究成果。

The pre-oral defense of the thesis activity is chaired by the director of the department or institute. The graduate student reports his research progress.

在预答辩中必须严格审查论文选题的意义，学位论文是否有独立见解，学位论文的工作量。

In the pre-oral defense, it is necessary to check it strictly whether the research topic has significance, whether the dissertation has independent opinions, and whether the workload of the dissertation is enough.

对预答辩中提出的问题，研究生要进行修改与补充，经系 (所) 主任 (所长) 同意报院长审批后，方可进入论文评阅、答辩。

The graduate students should revise the thesis according to the questions raised in the pre-oral defense. After the director of the department or institute agrees to report to the deam for approval, the student can move on to the stage of dissertation review and its oral defense.

对问题较多的学位论文要经过研究生修改后重新组织预答辩。

For the theses with more problems, another pre-oral defense will be organized after it is improved by the graduate student.

预答辩具体参照《西安交通大学学位授予工作暂行办法》 (西交研 [2003] 14号) 执行。

The pre-oral defense is specifically implemented with reference to the "Xi'an Jiaotong University Tentative Measures for Degree Awarding" (Xi Jiao Yan [2003] No. 14).

5. 学位论文 (Dissertation)

留学生应在导师的指导下，根据研究方向确定研究课题，独立完成具有一定学术水平和价值的学位论文。学位论文基本要求详见《西安交通大学学位授予工作暂行办法》 (西交研 [2013] 14号)、《西安交通大学硕士、博士学位论文规范》 (西交研 [2018] 6号)。

The international students should determine the research topic under the guidance of the tutor, and complete the dissertation independently with academic value. For the basic requirements of the dissertation, refer to the "Xi'an Jiaotong University Tentative Measures for Degree Awarding" (Xi Jiao Yan [2013] No. 14) and the "Xi'an Jiaotong University Thesis/Dissertation Standard" (Xi Jiao Yan [2018] No. 6).

6. 培养环节时间节点 (Timeline of training program)

	课程学习 Course work	开题报告 Dissertation Proposal	中期考核 Mid-term Assessment	预答辩 Pre-oral defense	论文答辩 Dissertation Defense
硕士 Masters programs	第 1-2 学期 Semester 1-2	第 3 学期 Semester 3	第 4 学期 Semester 4	第 6 学期 Semester 6	第 6 学期 Semester 6

七、学位申请与授予工作(Degree application and awarding)

留学生硕士学位申请与授予工作按照学校相关规定执行。根据《西安交通大学学位授予工作暂行办法》（西交研〔2013〕14号）、《西安交通大学关于研究生学位申请的若干规定》（西交研〔2013〕23号）、《医学部研究生学位论文质量保障实施细则》等相关文件规定授予留学生硕士学位。

The application and awarding of Master's degree for international students shall be carried out in accordance with the relevant regulations of the university, include the "Xi'an Jiaotong University Tentative Measures for Degrees Awarding" (Xi Jiao Yan [2013] No. 14), the " Xi'an Jiaotong University Several Provisions on Application for Doctoral Degrees " (Xi Jiao Yan [2013] No. 23), the "Detailed Regulations for Quality Assurance of Doctoral Dissertation of Health Science Center", and other relevant documents.

医学基础类攻读博士学位（学术型）国际研究生培养方案

International Academic Doctoral Degree Programs in Preclinical Medicine

一、培养目标 (Training objectives)

1. 掌握较坚实系统的专业基础理论知识和研究方法。

Students master the systematic and specialized theoretical knowledge and research methods.

2. 具有一定的课题设计能力，能够独立从事本学科科学研究工作。

Students have the ability to design and can undertake scientific research independently in the discipline.

3. 具有较强的科研创新能力和社会适应能力。

Students have a strong innovative capacity for scientific research and social adaptability.

二、研究方向 (Research fields)

1. 生物学 (Biology)

2. 基础医学 (Basic Medicine)

3. 公共卫生与预防医学 (Public Health and Preventive Medicine)

4. 药学 (Pharmaceutical Science)

5. 护理学 (Nursing)

三、学习年限 (Length of programs)

国际博士研究生学习年限一般为3-5年，经批准可适当延长，延长时间不超过1年。

The general duration of international PhD programs is 3 to 5 years. The prolongation (no more than one year) should to be approved by the university.

四、培养方式 (Program Overview)

1. 导师小组联合指导，导师负责制。各系、中心应成立以博士生导师为主5人指导小组及课题小组的有关成员，共同协助搞好贯通式研究生的培养工作。

Tutor is responsible for the students and the tutor group guides the students together. The tutor group should be set up in each department and centers, which include tutor and other project members and about 5 persons are included, and the members should work together to improve cultivation of graduate student.

2. 课程学习要满足需要的学分；课程包括本专业的基础课程和开展自己研究工作的必要知识和技术，可采用上课、学术报告、国际交流、讨论等方式。

The students should get enough course credits. The curriculum includes the basic courses of the major, specialized knowledge and skills which are necessary to carry out their own research work. The courses can be in different forms, such as class-room learning, academic reports, international exchanges,

discussions and other means.

3. 积极鼓励学生参加会议、讲座等，开展丰富多彩的科研活动，营造浓郁的科研氛围，提升学生的科研兴趣，增强学生解决重大科学问题的动力。

The students are encouraged to participate in conferences, seminars, etc. The university will carry out a variety of research activities and create a strong atmosphere of scientific research to enhance students' interest in scientific research, and improve students' motivation to solve major scientific problems.

4. 通过课题组、院系的科研汇报会、文献阅读会、小组讨论会，个别指导等形式，逐步强化学生的科研创新能力。

The students' scientific research and innovation ability are gradually strengthened by the forms of scientific research reports, journal clubs, group discussion, individual guidance and other forms in the research group and the department.

5. 加强培养期间的过程管理，第一学年学习专业基础理论，掌握进行科研所必需的基本技能并写出文献综述。从第二年起至第三学年开始在导师指导下进入课题研究和学位论文准备阶段。自第四学年结束完成博士中期考核，考核不通过者，可以参加下学期的中期考核，再次考核不通过者，予以分流处理。

The process management during the training will be strengthened. The students learn the specialized theory in the first year, and master the necessary basic skills for scientific research and can write a review. From the second year to the third year, under the guidance of the tutor, the students start the research project and prepare for the dissertation. The mid-term assessment should be completed before the fourth year. If the assessment is not qualified, the students can participate in the mid-term assessment next semester. If the students fail again the assessment again, the students will be terminated from the program.

五、课程学习(Course Work)

学术学位博士生课程学习应至少取得 14 学分，包括：公共课（汉语（II）2 学分、中国概况（II）2 学分）4 学分、专业学位课至少 6 学分，选修课学分根据专业学位课、总学分要求设置。新港报告纳入国际留学生选修课，学生听够 20 场讲座后可记 2 学分。

The students in the academic PhD program should get at least 14 credits, which includes public course (*Comprehensive Chinese II*, 2 credits, *The Outline of China II*, 2 credits, 4 credits in total), professional degree courses (no less than 6 credits), and elective courses (their credits are set up according to the total credits of degree). Innovation Harbour Lectures are included in elective courses for international students, 2 credits will be granted after attending 20 Lectures.

必修环节包括：学术活动（讲座）2 学分、开题报告 2 学分、中期考核 6 学分。

Other compulsory activities include academic lectures (2 credits), dissertation proposal (2 credits), and mid-term assessment (6 credits).

国际博士研究生课程设置和学分要求

Curriculum Design and Credit Requirements for International PhD Programs

课程类型 Course Type	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
公共学位课 Public Course	1	272003	ENGL602312	中国概况（II） （The Outline of China II）	2	必修 4 学分 4 credits are required
	2	272004	LITE600127	综合汉语（II） （Comprehensive Chinese II）	2	
专业学位课 Degree Course	1	153013	BASM640315	医学研究交流实践 Advanced Medical Research Initiation	2	必修 4 学分 4 credits are required
	2	152078	BASM611815	诺贝尔奖论文剖析 The Analysis of the Articles Acquired Nobel Prize	2	
专业必修学位课 Compulsory Degree Course	1	152088	BIOL710515	生理学（2） Physiology(II)	2	生物学专业 （根据学生的专业选修 2 学分） Biology (2credits are required according to students' major)
	2	152089	BIOL710615	遗传学（2） Medical Genetics(II)	2	
	3	152090	BIOL710715	细胞生物学（2） Cytobiology(II)	2	
	4	152091	BIOL710815	神经生物学（2） Neurobiology(II)	2	
	5	152092	BIOL710915	生物化学与分子生物学（2） Biochemistry and Medical Molecular Biology(II)	2	
	6	152188	BIOL711615	生物物理学（2） Biophysics(II)	2	

课程类型 Course Type	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
	1	152082	BASM710115	人体解剖与组织胚胎学(2) Human Anatomy, Histology and Embryology(II)	2	基础医学专业 (根据学生的专业选修2学分) Basic Medicine (2credits are required according to students' major)
	2	152086	BASM710415	免疫学(2) Immunology(II)	2	
	3	152083	BASM710215	病原生物学(2) Pathogenic Biology(II)	2	
	4	152084	BASM710315	病理学与病理生理学(2) Pathology & Pathophysiology(II)	2	
	5	152085	FORM710115	法医学(2) Forensic Medicine(II)	2	
	6	152183	STOM710315	口腔生物医学(2) Oral Biomedicine(II)	2	
	1	152096	PUBH710415	流行病与卫生统计学(2) Epidemiology and Health Statistics(II)	PUBH7104	公共卫生与预防医学专业 (根据学生的专业选修2学分) Public Health and Preventive Medicine (2credits are required according to students' major)
	2	152095	PUBH710315	劳动卫生与环境卫生学(2) Occupational and Environmental Health(II)	PUBH7103	
	3	152093	PUBH710115	营养与食品卫生学(2) Nutrition and Food hygiene(II)	PUBH7101	
	4	152094	PUBH710215	儿少卫生与妇幼保健学(2) Maternal and Child and Adolescent Health(II)	PUBH7102	
	5	152132	PUBH710515	卫生毒理学(2)	PUBH7105	

课程类型 Course Type	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
				Health Toxicology(II)		药学专业 (根据学生的专业选修2学分) Pharmaceutical Science (2credits are required according to students' major)
	1	152131	PHMA710615	药物化学(2) Medicinal Chemistry(II)	2	
	2	172014	PHMA710515	药剂学(2) Pharmaceutics(II)	2	
	3	172005	PHMA710415	生药学(2) Pharmacognosy(II)	2	
	4	172004	PHMA710315	药物分析学(2) Pharmaceutical Analysis(II)	2	
	5	152133	PHMA710215	微生物与生化药学(2) Microbial and Biochemical Pharmaceutics(II)	2	
	6	152087	PHMA710115	药理学(2) Pharmacology(II)	2	
	7	152165	PHMA710715	天然药物化学(2) Chemistry of Natural Products(II)	2	
	8	152166	PHMA710815	药事管理学(2) Pharmacy Administration(II)	2	
	1	152107	NURS710115	护理学(2) Nursing Science(II)	2	护理学专业 (根据学生的专业选修2学分) Nursing (2credits are required according to students' major)

课程类型 Course Type	序号 No.	课程编号 Course number	统一编码 Course Code	课程名称 Course Title	学分 Credit	备注 Notes
选修课 Elective Course			/	课程目录上选修 (Choosing Course on Course Directory)	≥4	≥4 学分 (A minimum of 4 credits are required)
必修环节 Compulsory Activities	1	001999	BXHJ800399	学术活动(讲座) (博) (Lectures)(Doctoral)	2	必修 10 学分 10 credits are required
	2	001986	BXHJ800499	开题报告 (Dissertation Proposal)	2	
	3	001994	BXHJ800199	中期考核 (Mid-term Assessment)	6	

六、培养环节 (Compulsory Training Activities)

1. 学术活动 (讲座) (Lectures)

国际博士研究生学术活动 (讲座) 分为必听讲座和选听讲座。必听讲座为“科学道德与学风建设”; 选听讲座包括与学科紧密相关的“学科前沿系列专题讲座” (由各二级学科组织若干教授对本学科前沿知识进行讲座, 每个讲座由 5 个以上讲座组成) 一个系列和在全校范围内选听“学术讲座”1 次, 自己公开讲座 1 次, 完成后记 2 学分。

There are compulsory academic lectures and optional ones for the international doctoral students. The compulsory lecture is “Scientific Morality and Construction of Study Style”. The optional lectures include one “series lectures on the frontier of discipline”, one academic lecture, and 1 public academic lecture by students themselves. The “series lectures on the frontier of discipline” are held by several professors organized by every secondary discipline. Every series lecture consists of more than 5 lectures, by which the professors introduce the frontier knowledge in their discipline. Two credits will be granted to the students when they complete all lectures.

2. 开题报告 (Dissertation Proposal)

博士研究所在第二学年至第三学年内完成开题报告。

开题应注重培养研究生的创新能力和科研能力, 在导师的指导下, 通过查阅文献、调查研究后由本人确定。研究生在确定开题后, 应写出文献综述, 并在科室内做开题报告, 报告其选题依据和研究工作计划; 与会者应对开题的创新性, 科研设计的严密性, 方法和指标选择的科学性等进行评论。开题报告必须有详细记录, 记录填写在《西安交通大学研究生开题报告》中。

The dissertation proposal should be completed during the second to the third year.

The dissertation proposal should be determined by the students themselves after the references consulting and the project investigating on the guidance of their mentors. The innovative ability and scientific research ability of graduate students should be trained by the dissertation proposal. The

doctoral students should write a review, and report the dissertation proposal in the department to introduce the research background and topic basis, and research working plan. The participants should comment on the innovation of research idea, the preciseness of project design, and the scientificity of method and indicator selection. The dissertation proposal must have a detailed record, and the record is filled in the “Graduate Dissertation Proposal of Xi'an Jiaotong University”.

3. 中期考核 (Mid-term Assessment)

中期考核由 5-7 名本学科或相关学科博士生导师指导教师组成博士生中期考核小组。中期考核项目包括: 研究进展和综合能力两个方面。研究进展主要根据选题报告的内容, 考核其在研究过程中以是否按进度计划完成相关的工作, 以及所取得的主要成绩 (如: 发表论文、申报专利、基金撰写、以及研究过程中其他成果等), 还应检查其工作中存在的问题和下一步工作设想; 综合能力主要考核学生的口头和书面表达能力、外语水平、分析问题与解决问题能力等。

中期考核具体要求参照《西安交通大学关于博士研究生中期考核的若干规定》(西交研〔2014〕25 号) 执行。

The mid-term assessment is conducted by an assessment team which consists of 5-7 doctoral mentors in the discipline or related disciplines. The mid-term assessment includes research progress and comprehensive ability of students. The assessment of research progress mainly assesses whether the students complete the relevant work according to the schedule in the research project; and their main achievements (such as papers publishing, patents filing, fund writing, and other achievements in the research process, etc.) based on the dissertation proposal. The problems in the research work and the next work design should also be checked. The comprehensive ability is mainly to assess students' oral and writing ability, the level of foreign language, the ability of problem analysis and solution, etc.

The specific requirements for the mid-term assessment are implemented in accordance with the “Several Provisions on Mid-term Assessment of Doctoral Candidates of Xi'an Jiaotong University” (Xi Jiao Yan [2014] No. 25).

4. 预答辩 (Pre-oral defense)

博士研究生完成学位论文后必须在系 (所) 单位内组织预答辩。

After completing the dissertation, the doctoral student must conduct a pre-defense in the department.

预答辩由系 (所) 主任 (所长) 主持, 研究生报告自己的研究成果。

The pre-oral defense is chaired by the director of the department or institute. The graduate student reports his research results.

在预答辩中必须严格审查论文选题的意义, 学位论文是否有独立见解, 学位论文的工作量。

The pre-oral defense is chaired by the director of the department or institute. The graduate student reports his research results.

对预答辩中提出的问题, 研究生要进行修改与补充, 经系 (所) 主任 (所长) 同意报院长审批后, 方可进入论文评阅、答辩。

The pre-oral defense is specifically implemented with reference to the “Interim Measures for Degree Awarding in Xi'an Jiaotong University” (Xi Jiao Yan [2003] No. 14).

对问题较多的学位论文要经过研究生修改后重新组织预答辩。

The dissertation with more problems should hold a pre-defense again after revised by the graduate

student.

预答辩具体参照《西安交通大学学位授予工作暂行办法》（西交研〔2003〕14号）执行。

The pre-oral defense is specifically implemented with reference to the "Interim Measures for Degree Awarding in Xi'an Jiaotong University" (Xi Jiao Yan [2003] No. 14).

5. 学位论文 (Dissertation)

留学生应在导师的指导下，根据研究方向确定研究课题，独立完成具有一定学术水平和价值的学位论文。学位论文基本要求详见《西安交通大学学位授予工作暂行办法》（西交研〔2013〕14号）、《西安交通大学硕士、博士学位论文规范》（西交研〔2018〕6号）。

The international students should determine the research topic under the guidance of the tutor, and complete the dissertation with academic value independently. The basic requirements of the dissertation refer to the "Interim Measures for Degree Awarding in Xi'an Jiaotong University" (Xi Jiao Yan [2013] No. 14) and the "Dissertation Criterion for Master and Doctoral Students of Xi'an Jiaotong University" (Xi Jiao Yan [2018] No. 6).

6. 培养环节时间节点 (Timeline of training program)

	课程学习 Course work	开题报告 Dissertation Proposal	中期考核 Mid-term Assessment	预答辩 Pre-oral defense	论文答辩 Dissertation Defense
博士 Doctoral program	第 1-2 学期 Semester 1-2	第 2-3 学期 (Semester 2-3)	第 4 学期 Semester 4	第 6 学期 Semester 6	第 6-10 学期 Semester 6-10

七、学位申请与授予工作 (Degree awarding)

留学生博士学位申请与授予工作按照学校相关规定执行。根据《西安交通大学学位授予工作暂行办法》（西交研〔2013〕14号）、《西安交通大学关于研究生学位申请的若干规定》（西交研〔2013〕23号）、《博士学位论文评审实施细则》（西交研〔2013〕73号）、《医学部研究生学位论文质量保障实施细则》等相关文件规定授予留学生博士学位。

The application and awarding of doctoral degree for international students shall be carried out in accordance with the relevant regulations of the university, include the "Interim Measures for Degrees Awarding in Xi'an Jiaotong University" (Xi Jiao Yan [2013] No. 14), the "Several Provisions on Application for Doctoral Degrees by Xi'an Jiaotong University" (Xi Jiao Yan [2013] No. 23), the "Regulations of Doctoral Dissertation Review" (Xi Jiao Yan [2013] No. 73), the "Detailed Regulations for Quality Assurance of Doctoral Dissertation of Health Science Center", and other relevant documents.

医学临床类攻读硕士学位（专业学位）研究生培养方案

The Training Scheme for

Professional Master Degree in Clinical Medicine

一、培养目标 (Training objectives)

1. 具有较强的临床分析和思维能力，能处理本学科领域内的常见病。

The students have a strong ability on clinical analysis and thinking, can deal with common diseases in the discipline.

2. 掌握本学科的基础理论和系统的专业知识。

The students master the basic theory and system expertise of the discipline.

3. 能结合临床实际，学习并掌握临床科学研究的基本方法。

The students can combine the clinical practice, learn and master the basic methods of clinical research.

二、研究方向 (Research fields)

- | | |
|--------------|-------------|
| 1. 内科学 | 14. 妇产科学 |
| 2. 儿科学 | 15. 眼科学 |
| 3. 老年医学 | 16. 耳鼻咽喉科学 |
| 4. 神经病学 | 17. 麻醉学 |
| 5. 精神病与精神卫生学 | 18. 临床病理学 |
| 6. 皮肤病与性病学 | 19. 临床检验诊断学 |
| 7. 急诊医学 | 20. 肿瘤学 |
| 8. 重症医学 | 21. 放射肿瘤学 |
| 9. 全科医学 | 22. 放射影像学 |
| 10. 康复医学与理疗学 | 23. 超声医学 |
| 11. 外科学 | 24. 核医学 |
| 12. 儿外科学 | 25. 口腔临床医学 |
| 13. 骨科学 | |

1. Internal Medicine

14. Obstetrics and Gynecology

- | | |
|--|-------------------------------------|
| 2. Pediatrics | 15. Ophthalmology |
| 3. Geriatrics | 16. Otolaryngology |
| 4. Neurology | 17. Anesthesiology |
| 5. Psychiatry and Mental Health | 18. Clinical pathology |
| 6. Dermatovenereology | 19. Clinical Laboratory Diagnostics |
| 7. Emergency Medicine | 20. Oncology |
| 8. Critical Care Medicine | 21. Radiation Oncology |
| 9. General Practice | 22. Radiological Imaging |
| 10. Rehabilitation Medicine and Physical Therapy | 23. Ultrasonic Medicine |
| 11. Surgery | 24. Nuclear medicine |
| 12. Pediatric surgery | 25. Clinical Science of Stomatology |
| 13. Orthopedics | |

三、学习年限 (Length of program)

国际硕士研究生学习年限一般为3年,经批准可适当延长,延长时间不超过1年。

The general duration of international master programs is 3 years. The prolongation should be approved by the university and is no more than one year.

四、培养方式 (Training ways)

1. 实行导师指导和课题组集体培养相结合的方式。

The students are training together by the mentor and group.

2. 课程学习可采用上课、自学、辅导、讨论等方式。

The courses learning can be in the forms of class, self-study, tutoring, discussions and other means.

3. 导师应根据本培养方案和因材施教的原则,于硕士生入学后2个月内,制定出具体的培养计划。

The tutor should develop a specific training plan within 2 months after the student start the master degree program according to the training scheme and the principle of teaching students in accordance with their aptitude.

4. 开题应注重培养硕士生的创新能力及科研能力,在导师的指导下,通过查阅

文献、调查研究后由本人确定。开题报告必须有详细记录,记录填写在《西安交通大学研究生开题报告》中。

The dissertation proposal should focus on training the students' innovative ability and scientific research ability. The dissertation proposal should be determined by the student after consulting the literature and investigating the research under the guidance of the tutor. The dissertation proposal must have a detailed record, and the record is filled in the "Graduate Dissertation Proposal of Xi'an Jiaotong University".

5. 临床实习由各附属医院研究生管理部门统一负责安排。

The clinical internship is uniformly arranged by the graduate management department of the affiliated hospitals.

6. 硕士生应参加校、院组织的研讨会或其它学术活动。根据科研工作的需要,可适当安排外出参加有关学术活动。

Master students should attend seminars or other academic activities organized by the university and the school. The students can also be arranged to participate in relevant academic activities according to the needs of scientific research.

7. 硕士生应在第四学期结束前完成中期考核,考核不通过者,可以参加下学期的中期考核。

Master students should complete the mid-term assessment before the end of the fourth semester. If the assessment is not passed, they can participate in the mid-term assessment of the next semester.

五、课程学习(Courses)

医学临床类专业学位硕士生的课程学习和临床实践应至少取得34学分,包括:公共课(汉语(I)2学分、中国概况(I)2学分)4学分、专业学位课至少8学分,临床实践18学分,选修课学分根据专业学位课、实践学分、总学分要求设置。

The students in the clinical medicine master program should get 34 credits at least, which includes public course (Chinese I, 2 credits, Overview of China I, 2 credits, 4 credits in total), professional degree courses (no less than 8 credits), clinical practice (18 credits), and elective courses (their credits are set up according to the total credits of degree).

必修环节包括:学术活动(讲座)1学分、中期考核3学分。

Other compulsory activities include: academic lecture (doctor) (1 credits), and

mid-term assessment (3 credits).

国际硕士研究生课程设计和学分要求

(Curriculum Design and Credit Requirements of International Master Programs)

课程类型 (Course Type)	序号 (NO.)	全校统一编码 (Course Code)	课程名称 (Course Name)	学分 (Credit)	备注 (Comments)
公共学位课 (Public Course)	1	LITE610112	中国概况 (I) (Overview of China I)	2	必修 4 学分 (4 credits are required)
	2	LITE610227	综合汉语 (I) (Comprehensive Chinese I)	2	
专业学位课 (Degree Course)	1	PUBH610715	医学统计学 Medical Statistics	2	必修 6 学分 (6 credits are required)
	2	PUBH640115	现代流行病学 Modern Epidemiology	2	
	3	BASM612015	医用生物信息基础 Introduction to Bioinformatics and Med-informatics	1	
	4	CLIM640115	临床医学导论 Introduction of Clinical Medicine	1	
专业必修学位课 (Compulsory Degree Course)	1	CLIM710815	内科学 (2) Internal Medicine (II)	2	根据学生的专业 选修 2 学分 (2 credits are required according to students' major)
	2	CLIM711115	儿科学 (2) Pediatrics (II)	2	
	3	CLIM711715	老年医学 (2) Geriatrics (II)	2	
	4	CLIM711015	神经病学 (2) Neurology (II)	2	
	5	CLIM711315	精神病与精神卫生学 (2)	2	

			Psychiatry and Mental Health (II)	
6	CLIM710915		皮肤病与性病学 (2) Dermatovenereology (II)	2
7	CLIM711615		临床检验诊断学(2) Clinical Laboratory Diagnostics (II)	
8	CLIM711215		外科学 (2) Surgery (II)	2
9	CLIM710715		妇产科学 (2) Obstetrics and Gynecology (II)	2
10	CLIM710515		眼科学 (2) Ophthalmology (II)	2
11	CLIM710315		耳鼻咽喉科学 (2) Otolaryngology (II)	2
12	CLIM710415		肿瘤学 (2) Oncology (II)	2
13	CLIM711815		康复医学与理疗学(2) Rehabilitation Medicine and Physical Therapy (II)	2
14	CLIM710615		麻醉学 (2) Anesthesiology (II)	2
15	CLIM711515		急诊医学 (2) Emergency Medicine (II)	2
16	CLIM712015		全科医学 (2) General Practice (II)	2
17	CLIM712115		临床病理学 (2) Clinical Pathology (II)	2
18	CLIM712915		重症医学 (2) Critical Care Medicine(II)	2
19	CLIM712715		儿外科学 (2)	2

			Pediatric surgery(II)		
	20	CLIM712815	骨科学(2) Orthopedics(II)	2	
	21	CLIM712615	放射肿瘤学(2) Radiation Oncology(II)	2	
	22	CLIM712315	放射影像学(2) Radiological Imaging(II)	2	
	23	CLIM712515	超声医学(2) Ultrasonic Medicine(II)	2	
	24	CLIM712415	核医学(2) Nuclear medicine(II)	2	
	25	STOM710215	口腔临床医学(2) Clinical Science of Stomatology(II)	2	
临床实践 (Clinical Practice)	1	CLIM750115	临床技能(2) Clinical Skill(II)	10	18 学分 (18 credits are required)
	2	CLIM750215	临床思维能力(2) Clinical Thinking Ability (II)	8	
选修课 (Elective Course)		/	课程目录上选修 (Choosing course on course directory)	≥4	≥4 学分 (A minimum of 4 credits are required)
必修环节 (Compulsory Activity)	1	BXHJ600399	学术活动(讲座)(硕) (Lecture)(Master)	1	必修 4 学分 (4 credits are required)
	2	BXHJ600799	中期考核 (Mid-term Assessment)	3	

六、培养环节 (Compulsory Training Activities)

1. 学术活动 (讲座) (Lectures)

国际硕士研究生学术活动 (讲座) 分为必听讲座和选听讲座。必听讲座包括“科学道德与学风建设”1 次、“职业生涯发展与规划导论”1 次；选听讲座包括与学科紧密相关的“学科前沿系列专题讲座” (由各二级学科组织若干教授对本学科前沿知识进行

讲座, 每个讲座由 5 个以上讲座组成) 一个系列和在全校范围内选听“学术讲座”1 次, 完成全部 8 个讲座后记 1 学分。

There are compulsory academic lectures and selective ones for the international master students. The compulsory lecture includes 1 “Scientific Morality and Construction of Study Style” and 1 “Introduction to Career Development and Planning”. The selective lectures include 1 “series lectures on the frontier of discipline”, and 1 “academic lecture”. The “series lectures on the frontier of discipline” are hold by several professors organized by every secondary discipline. Every series lecture consists of more than 5 lectures, by which the professors introduce the frontier knowledge in their discipline. One credits will be granted to the students when they complete all lectures.

2. 开题报告 (Dissertation Proposal)

硕士研究生要求在第三学期内完成开题报告。开题应注重培养研究生的创新能力和科研能力, 在导师的指导下, 通过查阅文献、调查研究后由本人确定。研究生在确定开题后, 应写出文献综述, 并在科室内做开题报告, 报告其选题依据和研究工作计划; 与会者应对开题的创新性, 科研设计的严密性, 方法和指标选择的科学性等进行评论。开题报告必须有详细记录, 记录填写在《西安交通大学研究生开题报告》中。

The dissertation proposal should be completed during the third semester. The dissertation proposal should be determined by the students themselves after the references consulting and the project investigating on the guidance of their mentors. The innovative ability and scientific research ability of graduate students should be trained by the dissertation proposal. The doctoral students should write a review, and report the dissertation proposal in the department to introduce the research background and topic basis, and research working plan. The participants should comment on the innovation of research idea, the preciseness of project design, and the scientificity of method and indicator selection. The dissertation proposal must have a detailed record, and the record is filled in the “Graduate Dissertation Proposal of Xi'an Jiaotong University”.

3. 中期考核 (Mid-term Assessment)

中期考核由 5 名副高职称以上 (含副高) 组成硕士生中期考核小组。硕士研究生中期考核主要是对硕士研究生完成的论文工作进展情况进行检查和评议, 综合考察研究工作的成果, 中期考核的主要内容包括: 论文研究内容简介、研究进展情况、下一

步的工作计划等。

中期考核具体要求参照《关于加强硕士生培养过程质量监控的若干规定》（西交研〔2009〕18号）执行。

The mid-term assessment should be conducted by an assessment group which consists of five mentors who have at least deputy senior professional title. It is mainly to check and evaluate the thesis progress of the master students, check the results of research work comprehensively. The main contents of the mid-term assessment include a brief introduction of research content, the research progress, and the next work plan.

The specific requirements for the mid-term assessment shall be implemented in accordance with the "Several Provisions on Strengthening the Quality Control of Master Students' Training Process" (Xi Jiao Yan [2009] No. 18).

4. 临床考核

临床综合能力包括临床专业知识、临床分析能力、临床诊疗能力、临床技术操作能力，以及阅读专业外文文献的能力等等。针对硕士的培养要求，申请人在培养过程中以及申请学位时必须通过相应的考核。临床综合能力考核采取定性定量相结合、一次考核与平时考核相结合以及自我评价与专家考核相结合的方式。

考核内容：1) 转科考核：考查申请人在第一阶段是否按照培养方案完成各轮转科室的要求，是否掌握了本科室的基本理论和基本技能，是否具有良好的医德医风。2) 阶段考核：包括临床技能、临床思维能力、专业课的考核。本考核既是临床能力训练第一阶段的合格考核，也是学位课程考试，同时也作为临床医学硕士专业学位申请人的临床能力毕业考核，申请人转科考核及品德考核合格，方可进行阶段考核。

Clinical comprehensive ability includes clinical expertise, clinical analysis ability, clinical diagnosis and treatment ability, clinical operation ability, and the ability to read professional literatures in foreign language, etc. For the training requirements of master students, applicants must pass the corresponding assessments during the training process and degree application. The comprehensive clinical ability assessment adopts the combination of qualitative and quantitative assessment, the combination of one assessment and usual assessments, and the combination of self-evaluation and experts' assessment.

Assessment contents: (1) Assessment on clinical department rotation. It should be checked whether the applicant has completed the requirements of each department

according to the training program in the first stage, whether the applicant has mastered the basic theory and basic skills of the department, and whether he has a good medical ethics. (2) Stage assessment. It includes the assessment of clinical skills, clinical thinking skills, and examination of professional courses and professional foreign language. This assessment is not only the qualification assessment of the second phase of clinical ability training, but also the degree courses assessment, and also as the graduation assessment of the clinical ability of the applicant for clinical medical doctoral degree. The stage can be carried out after the applicant has passed the assessment on clinical department rotation and the evaluation of morality.

5. 预答辩 (Pre-defense)

硕士研究生完成学位论文后必须在系（所）单位内组织预答辩。

预答辩由系（所）主任（所长）主持，研究生报告自己的研究成果。

在预答辩中必须严格审查论文选题的意义，学位论文是否有独立见解，学位论文的工作量。

对预答辩中提出的问题，研究生要进行修改与补充，经系（所）主任（所长）同意报院长审批后，方可进入论文评阅、答辩。

对问题较多的学位论文要经过研究生修改后重新组织预答辩。

预答辩具体参照《西安交通大学学位授予工作暂行办法》（西交研〔2003〕14号）执行。

After completing the dissertation, the master student must conduct a pre-defense in the department.

The pre-defense is chaired by the director of the department or institute. The graduate student reports his research results.

In the pre-defense, it is necessary to investigate strictly if the research topic has significance, whether the dissertation has independent opinions, and if the workload of the dissertation is enough.

The graduate students should revise and supplement the dissertation according to the questions raised in the pre-defense. After the director of the department or institute agrees to report to the president for approval, the student can enter the phase of dissertation review and defense.

The dissertation with more problems should hold a pre-defense again after revised by the graduate student.

The pre-defense is specifically implemented with reference to the “Interim Measures for Degree Awarding in Xi'an Jiaotong University” (Xi Jiao Yan [2003] No. 14).

6. 学位论文 (Dissertation)

留学生应在导师的指导下，根据研究方向确定研究课题，独立完成具有一定学术水平和价值的学位论文。学位论文基本要求详见《西安交通大学学位授予工作暂行办法》（西交研〔2013〕14号）、《西安交通大学硕士、博士学位论文规范》（西交研〔2018〕6号）。

The international students should determine the research topic under the guidance of the tutor, and complete the dissertation with academic value independently. The basic requirements of the dissertation refer to the “Interim Measures for Degree Awarding in Xi'an Jiaotong University” (Xi Jiao Yan [2013] No. 14) and the "Dissertation Criterion for Master and Doctoral Students of Xi'an Jiaotong University" (Xi Jiao Yan [2018] No. 6).

7. 培养环节时间节点(Timeline of training program)

	课程学习 (Courses)	开题报告 (Dissertation Proposal)	中期考核 (Mid-term Assessment)	预答辩 (Pre-defense)	论文答辩 (Dissertation Defense)
硕士(Master program)	第 1-2 学期 (Semester 1-2)	第 3 学期 (Semester 3)	第 4 学期 (Semester 4)	第 6 学期 (Semester 6)	第 6 学期 (Semester 6)

六、学位申请与授予工作 (Degree application and awarding)

留学生硕士学位申请与授予工作按照学校相关规定执行。根据《西安交通大学学位授予工作暂行办法》（西交研〔2013〕14号）、《西安交通大学关于研究生学位申请的若干规定》（西交研〔2013〕23号）、《医学部研究生学位论文质量保障实施细则》等相关文件规定授予留学生硕士学位。

The application and awarding of master degree for international students shall be carried out in accordance with the relevant regulations of the university, include the “Interim Measures for Degrees Awarding in Xi'an Jiaotong University” (Xi Jiao Yan [2013]

No. 14), the "Several Provisions on Application for Doctoral Degrees by Xi'an Jiaotong University" (Xi Jiao Yan [2013] No. 23), the “Detailed Regulations for Quality Assurance of Doctoral Dissertation of Health Science Center”, and other relevant documents.

医学临床类攻读博士（专业学位）研究生培养方案

The Training Scheme for Professional Doctoral Degree in Clinical Medicine

一、培养目标（Training objectives）

1. 具有较严密的逻辑思维和较强的分析问题、解决问题的能力，熟练地掌握本学

科的临床技能，能独立处理本学科常见病及某些疑难病症。

The students have a more rigorous logical thinking and a strong ability on problem analyzing and solving. The students master the clinical skill of the discipline and can handle common diseases and certain difficult diseases in the discipline independently.

2. 掌握本学科坚实宽广的基础理论和系统深入的专业知识。

The students master the solid and broad basic theory, and the systemic and in-depth professional knowledge of the discipline.

3. 具有从事临床科学研究工作的能力，能紧密结合临床实践，选定科研课题，实施科学研究。

The students have the ability to engage in clinical scientific research, can select scientific research projects closely combined with the clinical practice and carry out the scientific research.

二、研究方向（Research fields）

- | | |
|--------------|-------------|
| 1. 内科学 | 14. 妇产科学 |
| 2. 儿科学 | 15. 眼科学 |
| 3. 老年医学 | 16. 耳鼻咽喉科学 |
| 4. 神经病学 | 17. 麻醉学 |
| 5. 精神病与精神卫生学 | 18. 临床病理学 |
| 6. 皮肤病与性病学 | 19. 临床检验诊断学 |

- | | |
|--------------|-----------|
| 7. 急诊医学 | 20. 肿瘤学 |
| 8. 重症医学 | 21. 放射肿瘤学 |
| 9. 全科医学 | 22. 放射影像学 |
| 10. 康复医学与理疗学 | 23. 超声医学 |
| 11. 外科学 | 24. 核医学 |
| 12. 儿外科学 | |
| 13. 骨科学 | |

- | | |
|---|-------------------------------------|
| 1. Internal Medicine | 14. Obstetrics and Gynecology |
| 2. Pediatrics | 15. Ophthalmology |
| 3. Geriatrics | 16. Otolaryngology |
| 4. Neurology | 17. Anesthesiology |
| 5. Psychiatry and Mental Health | 18. Clinical pathology |
| 6. Dermatovenereology | 19. Clinical Laboratory Diagnostics |
| 7. Emergency Medicine | 20. Oncology |
| 8. Critical Care Medicine | 21. Radiation Oncology |
| 9. General Practice | 22. Radiological Imaging |
| 10. Rehabilitation Medicine and
Physical Therapy | 23. Ultrasonic Medicine |
| 11. Surgery | 24. Nuclear medicine |
| 12. Pediatric surgery | |
| 13. Orthopedics | |

三、学习年限（Length of program）

国际博士研究生学习年限一般为3-5年，经批准可适当延长，延长时间不超过1年。

The general duration of international doctoral programs is 3 to 5 years. The prolongation should to be approved by the university and is no more than one year.

四、培养方式 (Training way)

1. 导师小组联合指导，导师负责制。各系、中心应成立以博士生导师为主 5 人指导小组及课题小组的有关成员，共同协助搞好贯通式研究生的培养工作。

Mentor is responsible for the students and the mentors group guides the students together. The mentors group should be set up in each department and centers, which includes mentor and other project members and is about 5 persons, and the members should work together to improve the through cultivation of graduate student.

2. 课程学习要满足需要的学分；课程包括本专业的基础课程和开展自己研究工作的必要知识和技术，可采用上课、学术报告、国际交流、讨论等方式。

The students should get enough course credits. The curriculum includes the basic courses of the major, professional knowledge and skills which are necessary to carry out their own research work. The courses can be in different forms, such as class, academic reports, international exchanges, discussions and other means.

3. 积极鼓励学生参加会议、讲座等，展丰富多彩的科研活动，营造浓郁的科研氛围，提升学生的科研兴趣，增强学生解决重大科学问题的动力。

The students are encouraged to participate in conferences, seminars, etc. The university will carry out a variety of research activities and create a strong atmosphere of scientific research to enhance students' interest in scientific research, and improve students' motivation to solve major scientific problems.

4. 通过课题组、院系的科研汇报会、文献阅读会、小组讨论会，个别指导等形式，逐步强化学生的科研创新能力。

The students' scientific research and innovation ability are gradually strengthened by the forms of scientific research reports, journal clubs, group discussion, individual guidance and others forms in the research group and the department.

5. 加强培养期间的过程管理，第一学年学习专业基础理论，掌握进行科研所必需的基本技能并写出文献综述。从第二年起至第三学年开始在导师指导下进入课题研究 and 学位论文准备阶段。自第四学年结束完成博士中期考核，考核不通过者，可以参加下学期的中期考核，再次考核不过者，予以分流处理。

The process management during the training will be strengthened. The students learn the professional theory in the first year, and master the necessary basic skills for scientific

research and can write a review. From the second year to the third year, under the guidance of the mentor, the students start the research project and prepare for the dissertation. The mid-term assessment should be passed before the fourth year. If the assessment is not passed, the students can participate in the mid-term assessment of next semester. The students do not pass the assessment again only graduate with the certificate of the master degree and doctoral diploma.

五、课程学习 (Courses)

临床医学专业学位博士生课程学习和专业实践应至少取得 35 学分，包括：公共课（汉语（II）2 学分、中国概况（II）2 学分）4 学分、专业学位课至少 6 学分，专业实践 21 学分，选修课学分根据专业学位课、总学分要求设置。

The students in the clinical medicine doctoral program should get 35 credits at least, which includes public course (Chinese II, 2 credits, Overview of China II, 2 credits, 4 credits in total), professional degree courses (no less than 6 credits), clinical practice (21 credits), and elective courses (their credits are set up according to the total credits of degree).

必修环节包括：学术活动（讲座）2 学分、开题报告 2 学分、中期考核 6 学分。

Other compulsory activities include: academic lecture (doctor) (2 credits), opening report (2 credits), and mid-term assessment (6 credits).

国际博士研究生课程设计和学分要求

(Curriculum Design and Credit Requirements of International Doctoral Programs)

课程类型 (Course Type)	序号 (number)	全校统一编码 (Course Code)	课程名称 (Course name)	学分 (Credit)	备注 (Comments)
公共学位课 (Public Course)	1	LITE610112	中国概况 II (Overview of China II)	2	必修 4 学分 (4 credits are required)
	2	LITE610227	综合汉语 II (Comprehensive Chinese II)	2	
专业学位课	1	BASM640315	医学研究交流实践 Advanced Medical Research	2	必修 4 学分 (4 credits are required)

(Degree Course)			Initiation		required)
	2	BASM611815	诺贝尔奖论文剖析 The Analysis of the Articles Acquired Nobel Prize	2	
专业必修学位课 (Compulsory Degree Course)	1	CLIM710815	内科学(2) Internal Medicine (II)	2	根据学生的专业选修 2学分 (2 credits are required according to the students' major)
	2	CLIM711115	儿科学(2) Pediatrics (II)	2	
	3	CLIM711715	老年医学(2) Geriatrics (II)	2	
	4	CLIM711015	神经病学(2) Neurology (II)	2	
	5	CLIM711315	精神病与精神卫生学(2) Psychiatry and Mental Health (II)	2	
	6	CLIM710915	皮肤病与性病学(2) Dermatovenereology (II)	2	
	7	CLIM711615	临床检验诊断学(2) Clinical Laboratory Diagnostics (II)		
	8	CLIM711215	外科学(2) Surgery (II)	2	
	9	CLIM710715	妇产科学(2) Obstetrics and Gynecology (II)	2	
	10	CLIM710515	眼科学(2) Ophthalmology (II)	2	
	11	CLIM710315	耳鼻咽喉科学(2) Otolaryngology (II)	2	
	12	CLIM710415	肿瘤学(2) Oncology (II)	2	
	13	CLIM711815	康复医学与理疗学(2) Rehabilitation Medicine and Physical Therapy (II)	2	

	14	CLIM710615	麻醉学(2) Anesthesiology (II)	2	
	15	CLIM711515	急诊医学(2) Emergency Medicine (II)	2	
	16	CLIM712015	全科医学(2) General Practice (II)	2	
	17	CLIM712115	临床病理学(2) Clinical Pathology (II)		
	18	CLIM712915	重症医学(2) Critical Care Medicine(II)		
	19	CLIM712715	儿外科学(2) Pediatric surgery(II)		
	20	CLIM712815	骨科学(2) Orthopedics(II)		
	21	CLIM712615	放射肿瘤学(2) Radiation Oncology(II)		
	22	CLIM712315	放射影像学(2) Radiological Imaging(II)		
	23	CLIM712515	超声医学(2) Ultrasonic Medicine(II)		
	24	CLIM712415	核医学(2) Nuclear medicine(II)		
临床实践 (Clinical Practice)	1	CLIM850115	临床技能(3) Clinical Skill (III)	11	21 学分 (21credits are required)
	2	CLIM850215	临床思维能力(3) Clinical Thinking Ability (III)	10	
选修课 (Elective course)		/	课程目录上选修 (Choosing Course on Course Directory)	≥4	≥4 学分 (A minimum of 4 credits are required)
必修环节 (Compulsory)	1	BXHJ800399	学术活动(讲座)(博) (Lecture)(Doctor)	2	必修 10 学分 (10 credits are required)
	2	BXHJ800499	开题报告	2	

Activity)			(Dissertation Proposal)		
	3	BXHJ800199	中期考核 (Mid-term Assessment)	6	

六、培养环节 (Compulsory Training Activities)

1. 学术活动 (讲座) (Lectures)

国际博士研究生学术活动 (讲座) 分为必听讲座和选听讲座。必听讲座为“科学道德与学风建设”; 选听讲座包括与学科紧密相关的“学科前沿系列专题讲座”(由各二级学科组织若干教授对本学科前沿知识进行讲座, 每个讲座由 5 个以上讲座组成) 一个系列和在全校范围内选听“学术讲座”1 次, 自己公开讲座 1 次, 完成后记 2 学分。

There are compulsory academic lectures and selective ones for the international doctoral students. The compulsory lecture is “Scientific Morality and Construction of Study Style”. The selective lectures include 1 “series lectures on the frontier of discipline”, 1 academic lecture, and 1 public academic lecture by students themselves. The “series lectures on the frontier of discipline” are hold by several professors organized by every secondary discipline. Every series lecture consists of more than 5 lectures, by which the professors introduce the frontier knowledge in their discipline. Two credits will be granted to the students when they complete the lectures.

2. 开题报告 (Dissertation Proposal)

博士研究所在第二学年至第三学年内完成开题报告。

开题应注重培养研究生的创新能力和科研能力, 在导师的指导下, 通过查阅文献、调查研究后由本人确定。研究生在确定开题后, 应写出文献综述, 并在科室内做开题报告, 报告其选题依据和研究工作计划; 与会者应对开题的先进性, 科研设计的严密性, 方法和指标选择的科学性等进行评论。开题报告必须有详细记录, 记录填写在《西安交通大学研究生开题报告》中。

The dissertation proposal should be completed during the second to the third year.

The dissertation proposal should be determined by the students themselves after the references consulting and the project investigating on the guidance of their mentors. The innovative ability and scientific research ability of graduate students should be trained by the dissertation proposal. The doctoral students should write a review, and report the dissertation proposal in the department to introduce the research background and topic basis,

and research working plan. The participants should comment on the innovation of research idea, the preciseness of project design, and the scientificity of method and indicator selection. The dissertation proposal must have a detailed record, and the record is filled in the “Graduate Dissertation Proposal of Xi'an Jiaotong University”.

3. 中期考核 (Mid-term Assessment)

中期考核由 5-7 名本学科或相关学科博士生导师指导教师组成博士生中期考核小组。中期考核项目包括: 研究进展和综合能力两个方面 研究进展主要根据选题报告的内容, 考核其在研究过程中以是否按进度计划完成相关的工作, 以及所取得的主要成绩 (如: 发表论文、申报专利、基金撰写、以及研究过程中其他成果等), 还应检查其工作中存在的问题和下一步工作设想; 综合能力主要考核学生的口头和书面表达能力、外语水平、分析问题与解决问题能力等。

中期考核具体要求参照《西安交通大学关于博士研究生中期考核的若干规定》(西交研〔2014〕25 号) 执行。

The mid-term assessment is conducted by an assessment group which consists of 5-7 doctoral mentors in the discipline or related disciplines. The mid-term assessment includes research progress and comprehensive ability of students. The assessment of research progress mainly assesses whether the students complete the relevant work according to the schedule in the research project, and their main achievements (such as papers publishing, patents filing, fund writing, and other achievements in the research process, etc.) based on the dissertation proposal. The problems in the research work and the next work design should also be checked. The comprehensive ability is mainly to assess students' oral and writing ability, the level of foreign language, the ability of problem analysis and solution, etc.

The specific requirements for the mid-term assessment are implemented in accordance with the “Several Provisions on Mid-term Assessment of Doctoral Candidates of Xi'an Jiaotong University” (Xi Jiao Yan [2014] No. 25).

4. 临床综合能力考核 (The assessment of clinical comprehensive ability)

临床综合能力包括临床专业知识、临床分析能力、临床诊疗能力、临床技术操作能力, 以及阅读专业外文文献的能力等等。针对博士生的培养要求, 申请人在培养过程中以及申请学位时必须通过相应的考核。临床综合能力考核采取定性与定量相结合、

一次考核与平时考核相结合以及自我评价与专家考核相结合的方式。

考核内容：（1）转科考核：考查申请人在第一阶段是否按照培养方案完成各轮转科室的要求，是否掌握了本科室的基本理论和基本技能，是否具有良好的医德医风；

（2）阶段考核：包括临床技能、临床思维能力、专业课及专业外语的考核。本考核既是临床能力训练第二阶段的合格考核，也是学位课程考试，同时也作为临床医学博士专业学位申请人的临床能力毕业考核，申请人转科考核及思想品德考核合格后，方可进行阶段考核。

Clinical comprehensive ability includes clinical expertise, clinical analysis ability, clinical diagnosis and treatment ability, clinical operation ability, and the ability to read professional literatures in foreign language, etc. For the training requirements of doctoral students, applicants must pass the corresponding assessments during the training process and degree application. The comprehensive clinical ability assessment adopts the combination of qualitative and quantitative assessment, the combination of one assessment and usual assessments, and the combination of self-evaluation and experts' assessment.

Assessment contents: (1) Assessment on clinical department rotation. It should be checked whether the applicant has completed the requirements of each department according to the training program in the first stage, whether the applicant has mastered the basic theory and basic skills of the department, and whether he has a good medical ethics. (2) Stage assessment. It includes the assessment of clinical skills, clinical thinking skills, and examination of professional courses and professional foreign language. This assessment is not only the qualification assessment of the second phase of clinical ability training, but also the degree courses assessment, and also as the graduation assessment of the clinical ability of the applicant for clinical medical doctoral degree. The stage can be carried out after the applicant has passed the assessment on clinical department rotation and the evaluation of morality.

5. 预答辩 (Pre-defense)

博士研究生完成学位论文后必须在系（所）单位内组织预答辩。

预答辩由系（所）主任（所长）主持，研究生报告自己的研究成果。

在预答辩中必须严格审查论文选题的意义，学位论文是否有独立见解，学位论文的工作量。

对预答辩中提出的问题，研究生要进行修改与补充，经系（所）主任（所长）同意报院长审批后，方可进入论文评阅、答辩。

对问题较多的学位论文要经过研究生修改后重新组织预答辩。

预答辩具体参照《西安交通大学学位授予工作暂行办法》（西交研〔2003〕14号）执行。

After completing the dissertation, the Ph.D. student must conduct a pre-defense in the department.

The pre-defense is chaired by the director of the department or institute. The graduate student reports his research results.

In the pre-defense, it is necessary to investigate strictly if the research topic has significance, whether the dissertation has independent opinions, and if the workload of the dissertation is enough.

The graduate students should revise and supplement the dissertation according to the questions raised in the pre-defense. After the director of the department or institute agrees to report to the president for approval, the student can enter the phase of dissertation review and defense.

The dissertation with more problems should hold a pre defense again after revised by the graduate student.

The pre-defense is specifically implemented with reference to the "Interim Measures for Degree Awarding in Xi'an Jiaotong University" (Xi Jiao Yan [2003] No. 14).

6. 学位论文 (Dissertation)

留学生应在导师的指导下，根据研究方向确定研究课题，独立完成具有一定学术水平和价值的学位论文。学位论文基本要求详见《西安交通大学学位授予工作暂行办法》（西交研〔2013〕14号）、《西安交通大学硕士、博士学位论文规范》（西交研〔2018〕6号）。

The international students should determine the research topic under the guidance of the tutor, and complete the dissertation with academic value independently. The basic requirements of the dissertation refer to the "Interim Measures for Degree Awarding in Xi'an Jiaotong University" (Xi Jiao Yan [2013] No. 14) and the "Dissertation Criterion for Master and Doctoral Students of Xi'an Jiaotong University" (Xi Jiao Yan [2018] No. 6).

口腔医学攻读博士（专业学位）研究生培养方案

7.培养环节时间节点(Timeline of training program)

	课程学习 (Course)	开题报告 (Dissertation proposal)	中期考核 (Mid-term Assessment)	预答辩 (Pre-defense)	论文答辩 (Dissertation Defense)
博士 (Doctoral program)	第 1-2 学期 (Semester 1-2)	第 2-3 学期 (Semester 2-3)	第 4 学期 (Semester 4)	第 6 学期 (Semester 6)	第 6-10 学期 (Semester 6-10)

七、学位授予

留学生博士学位申请与授予工作按照学校相关规定执行。根据《西安交通大学学位授予工作暂行办法》（西交研〔2013〕14号）、《西安交通大学关于研究生学位申请的若干规定》（西交研〔2013〕23号）、《博士学位论文评审实施细则》（西交研〔2013〕73号）、《医学部研究生学位论文质量保障实施细则》等相关文件规定授予留学生博士学位。

The application and awarding of doctoral degree for international students shall be carried out in accordance with the relevant regulations of the university, include "The Interim Measures for Degrees Awarding in Xi'an Jiaotong University" (Xi Jiao Yan [2013] No. 14), "Several Provisions on Application for Doctoral Degrees by Xi'an Jiaotong University" (Xi Jiao Yan [2013] No. 23), "The Regulations of Doctoral Dissertation Review" (Xi Jiao Yan [2013] No. 73), "The Detailed Regulations for Quality Assurance of Doctoral Dissertation of Health Science Center", and other relevant documents.

The Training Scheme for

Professional Doctoral Degree in Stomatology

一、培养目标（Training objectives）

1. 具有较严密的逻辑思维和较强的分析问题、解决问题的能力，熟练地掌握本学科的临床技能，能独立处理本学科常见病及某些疑难病症。

The students have a more rigorous logical thinking and a strong ability on problem analyzing and solving. The students master the clinical skill of the discipline and can handle common diseases and certain difficult diseases in the discipline independently.

2. 掌握本学科坚实宽广的基础理论和系统深入的专业知识。

The students master the solid and broad basic theory, and the systemic and in-depth professional knowledge of the discipline.

3. 具有从事临床科学研究工作的能力，能紧密结合临床实践，选定科研课题，实施科学研究。

The students have the ability to engage in clinical scientific research, can select scientific research projects closely combined with the clinical practice and carry out the scientific research.

二、研究方向（Research fields）

1. 口腔临床医学（Clinical Science of Stomatology）

三、学习年限（Length of program）

国际博士研究生学习年限一般为3-5年，经批准可适当延长，延长时间不超过1年。

The general duration of international doctoral programs is 3 to 5 years. The prolongation should be approved by the university and is no more than one year.

四、培养方式（Training way）

1. 导师小组联合指导，导师负责制。各系、中心应成立以博士生导师为主5人

领导小组及课题组的有关成员，共同协助搞好贯通式研究生的培养工作。

Mentor is responsible for the students and the mentors group guides the students together. The mentors group should be set up in each department and centers, which includes mentor and other project members and is about 5 persons, and the members should work together to improve the through cultivation of graduate student.

2. 课程学习要满足需要的学分；课程包括本专业的基础课程和开展自己研究工作的必要知识和技术，可采用上课、学术报告、国际交流、讨论等方式。

The students should get enough course credits. The curriculum includes the basic courses of the major, professional knowledge and skills which are necessary to carry out their own research work. The courses can be in different forms, such as class, academic reports, international exchanges, discussions and other means.

3. 积极鼓励学生参加会议、讲座等，展丰富多彩的科研活动，营造浓郁的科研氛围，提升学生的科研兴趣，增强学生解决重大科学问题的动力。

The students are encouraged to participate in conferences, seminars, etc. The university will carry out a variety of research activities and create a strong atmosphere of scientific research to enhance students' interest in scientific research, and improve students' motivation to solve major scientific problems.

4. 通过课题组、院系的科研汇报会、文献阅读会、小组讨论会，个别指导等形式，逐步强化学生的科研创新能力。

The students' scientific research and innovation ability are gradually strengthened by the forms of scientific research reports, journal clubs, group discussion, individual guidance and others forms in the research group and the department.

5. 加强培养期间的过程管理，第一学年学习专业基础理论，掌握进行科研所必需的基本技能并写出文献综述。从第二年起至第三学年开始在导师指导下进入课题研究和学位论文准备阶段。自第四学年结束完成博士中期考核，考核不通过者，可以参加下学期的中期考核，再次考核不过者，予以分流处理。

The process management during the training will be strengthened. The students learn the professional theory in the first year, and master the necessary basic skills for scientific research and can write a review. From the second year to the third year, under the guidance of the mentor, the students start the research project and prepare for the dissertation. The

mid-term assessment should be passed before the fourth year. If the assessment is not passed, the students can participate in the mid-term assessment of next semester. The students do not pass the assessment again only graduate with the certificate of the master degree and doctoral diploma.

五、课程学习(Courses)

口腔临床医学专业学位博士生课程学习和专业实践应至少取得 35 学分，包括：公共课（汉语（II）2 学分、中国概况（II）2 学分）4 学分、专业学位课至少 6 学分，专业实践 21 学分，选修课学分根据专业学位课、总学分要求设置。

The students in the clinical science of stomatology doctoral program should get 35 credits at least, which includes public course (Chinese II, 2 credits, Overview of China II, 2 credits, 4 credits in total), professional degree courses (no less than 6 credits), clinical practice (21 credits), and elective courses (their credits are set up according to the total credits of degree).

必修环节包括：学术活动（讲座）2 学分、开题报告 2 学分、中期考核 6 学分。

Other compulsory activities include: academic lecture (doctor) (2 credits), opening report (2 credits), and mid-term assessment (6 credits).

国际博士研究生课程设计和学分要求

(Curriculum Design and Credit Requirements of International Doctoral Programs)

课程类型 (Course Type)	序号 (number)	全校统一编码 (Course Code)	课程名称 (Course Name)	学分 (Credit)	备注 (Comments)
公共学位课 (Public Course)	1	LITE610112	中国概况 II (Overview of China II)	2	必修 4 学分 (4 credits are required)
	2	LITE610227	综合汉语 II (Comprehensive Chinese II)	2	
专业学位课 (Degree Course)	1	BASM640315	医学研究交流实践 Advanced Medical Research Initiation	2	必修 4 学分 (4 credits are required)
	2	BASM611815	诺贝尔奖论文剖析 The Analysis of the Articles	2	

			Acquired Nobel Prize		
专业必修学位课 (Compulsory Degree Course)	1	STOM710215	口腔临床医学(2) Clinical Science of Stomatology	2	根据学生的专业选修 2学分 (2 credits are required according to the students' major)
临床实践 (Clinical Practice)	1	CLIM850115	临床技能(3) Clinical Skill (III)	11	21 学分 (21 credits are required)
	2	CLIM850215	临床思维能力(3) Clinical Thinking Ability (III)	10	
选修课 (Elective Course)		/	课程目录上选修 (Choosing Course on Course Directory)	≥4	≥4 学分 (A minimum of 4 credits are required)
必修环节 (Compulsory Activity)	1	BXHJ800399	学术活动(讲座)(博) (Lecture)(Doctor)	2	必修 10 学分 (10 credits are required)
	2	BXHJ800499	开题报告 (Dissertation Proposal)	2	
	3	BXHJ800199	中期考核 (Mid-term Assessment)	6	

六、培养环节 (Compulsory Training Activities)

1. 学术活动 (讲座) (Lectures)

国际博士研究生学术活动 (讲座) 分为必听讲座和选听讲座。必听讲座为“科学道德与学风建设”; 选听讲座包括与学科紧密相关的“学科前沿系列专题讲座”(由各二级学科组织若干教授对本学科前沿知识进行讲座, 每个讲座由 5 个以上讲座组成) 一个系列和在全校范围内选听“学术讲座”1 次, 自己公开讲座 1 次, 完成后记 2 学分。

There are compulsory academic lectures and selective ones for the international doctoral students. The compulsory lecture is “Scientific Morality and Construction of Study Style”. The selective lectures include 1 “series lectures on the frontier of discipline”, 1 academic lecture, and 1 public academic lecture by students themselves. The “series lectures on the frontier of discipline” are hold by several professors organized by every secondary discipline. Every series lecture consists of more than 5 lectures, by which the

professors introduce the frontier knowledge in their discipline. Two credits will be granted to the students when they complete the lectures.

2. 开题报告 (Dissertation Proposal)

博士研究所在第二学年至第三学年内完成开题报告。

开题应注重培养研究生的创新能力和科研能力, 在导师的指导下, 通过查阅文献、调查研究后由本人确定。研究生在确定开题后, 应写出文献综述, 并在科室内做开题报告, 报告其选题依据和研究工作计划; 与会者应对开题的先进性, 科研设计的严密性, 方法和指标选择的科学性等进行评论。开题报告必须有详细记录, 记录填写在《西安交通大学研究生开题报告》中。

The dissertation proposal should be completed during the second to the third year.

The dissertation proposal should be determined by the students themselves after the references consulting and the project investigating on the guidance of their mentors. The innovative ability and scientific research ability of graduate students should be trained by the dissertation proposal. The doctoral students should write a review, and report the dissertation proposal in the department to introduce the research background and topic basis, and research working plan. The participants should comment on the innovation of research idea, the preciseness of project design, and the scientificity of method and indicator selection. The dissertation proposal must have a detailed record, and the record is filled in the “Graduate Dissertation Proposal of Xi'an Jiaotong University”.

3. 中期考核 (Mid-term Assessment)

中期考核由 5-7 名本学科或相关学科博士生指导教师组成博士生中期考核小组。中期考核项目包括: 研究进展和综合能力两个方面 研究进展主要根据选题报告的内容, 考核其在研究过程中以是否按进度计划完成相关的工作, 以及所取得的主要成绩 (如: 发表论文、申报专利、基金撰写、以及研究过程中其他成果等), 还应检查其工作中存在的问题和下一步工作设想; 综合能力主要考核学生的口头和书面表达能力、外语水平、分析问题与解决问题能力等。

中期考核具体要求参照《西安交通大学关于博士研究生中期考核的若干规定》(西交研(2014) 25 号) 执行。

The mid-term assessment is conducted by an assessment group which consists of 5-7

doctoral mentors in the discipline or related disciplines. The mid-term assessment includes research progress and comprehensive ability of students. The assessment of research progress mainly assesses whether the students complete the relevant work according to the schedule in the research project, and their main achievements (such as papers publishing, patents filing, fund writing, and other achievements in the research process, etc.) based on the dissertation proposal. The problems in the research work and the next work design should also be checked. The comprehensive ability is mainly to assess students' oral and writing ability, the level of foreign language, the ability of problem analysis and solution, etc.

The specific requirements for the mid-term assessment are implemented in accordance with the "Several Provisions on Mid-term Assessment of Doctoral Candidates of Xi'an Jiaotong University" (Xi Jiao Yan [2014] No. 25).

4. 临床综合能力考核 (The assessment of clinical comprehensive ability)

临床综合能力包括临床专业知识、临床分析能力、临床诊疗能力、临床技术操作能力, 以及阅读专业外文文献的能力等等。针对博士生的培养要求, 申请人在培养过程中以及申请学位时必须通过相应的考核。临床综合能力考核采取定性与定量相结合、一次考核与平时考核相结合以及自我评价与专家考核相结合的方式。

考核内容: (1) 转科考核: 考查申请人在第一阶段是否按照培养方案完成各轮转科室的要求, 是否掌握了本科室的基本理论和基本技能, 是否具有良好的医德医风;

(2) 阶段考核: 包括临床技能、临床思维能力、专业课及专业外语的考核。本考核既是临床能力训练第二阶段的合格考核, 也是学位课程考试, 同时也作为口腔临床医学博士专业学位申请人的临床能力毕业考核, 申请人转科考核及思想品德考核合格后, 方可进行阶段考核。

Clinical comprehensive ability includes clinical expertise, clinical analysis ability, clinical diagnosis and treatment ability, clinical operation ability, and the ability to read professional literatures in foreign language, etc. For the training requirements of doctoral students, applicants must pass the corresponding assessments during the training process and degree application. The comprehensive clinical ability assessment adopts the combination of qualitative and quantitative assessment, the combination of one assessment and usual assessments, and the combination of self-evaluation and experts' assessment.

Assessment contents: (1) Assessment on clinical department rotation. It should be checked whether the applicant has completed the requirements of each department according to the training program in the first stage, whether the applicant has mastered the basic theory and basic skills of the department, and whether he has a good medical ethics. (2) Stage assessment. It includes the assessment of clinical skills, clinical thinking skills, and examination of professional courses and professional foreign language. This assessment is not only the qualification assessment of the second phase of clinical ability training, but also the degree courses assessment, and also as the graduation assessment of the clinical ability of the applicant for clinical science of stomatology doctoral degree. The stage can be carried out after the applicant has passed the assessment on clinical department rotation and the evaluation of morality.

5. 预答辩 (Pre-defense)

博士研究生完成学位论文后必须在系(所)单位内组织预答辩。

预答辩由系(所)主任(所长)主持, 研究生报告自己的研究成果。

在预答辩中必须严格审查论文选题的意义, 学位论文是否有独立见解, 学位论文的工作量。

对预答辩中提出的问题, 研究生要进行修改与补充, 经系(所)主任(所长)同意报院长审批后, 方可进入论文评阅、答辩。

对问题较多的学位论文要经过研究生修改后重新组织预答辩。

预答辩具体参照《西安交通大学学位授予工作暂行办法》(西交研〔2003〕14号)执行。

After completing the dissertation, the Ph.D. student must conduct a pre-defense in the department.

The pre-defense is chaired by the director of the department or institute. The graduate student reports his research results.

In the pre-defense, it is necessary to investigate strictly if the research topic has significance, whether the dissertation has independent opinions, and if the workload of the dissertation is enough.

The graduate students should revise and supplement the dissertation according to the questions raised in the pre-defense. After the director of the department or institute agrees

to report to the president for approval, the student can enter the phase of dissertation review and defense.

The dissertation with more problems should hold a pre defense again after revised by the graduate student.

The pre-defense is specifically implemented with reference to the “Interim Measures for Degree Awarding in Xi'an Jiaotong University” (Xi Jiao Yan [2003] No. 14).

6. 学位论文 (Dissertation)

留学生应在导师的指导下，根据研究方向确定研究课题，独立完成具有一定学术水平和价值的学位论文。学位论文基本要求详见《西安交通大学学位授予工作暂行办法》（西交研〔2013〕14号）、《西安交通大学硕士、博士学位论文规范》（西交研〔2018〕6号）。

The international students should determine the research topic under the guidance of the tutor, and complete the dissertation with academic value independently. The basic requirements of the dissertation refer to the “Interim Measures for Degree Awarding in Xi'an Jiaotong University” (Xi Jiao Yan [2013] No. 14) and the "Dissertation Criterion for Master and Doctoral Students of Xi'an Jiaotong University" (Xi Jiao Yan [2018] No. 6).

7. 培养环节时间节点(Timeline of training program)

	课程学习 (Courses)	开题报告 (Dissertation Proposal)	中期考核 (Mid-term Assessment)	预答辩 (Pre-defense)	论文答辩 (Dissertation Defense)
博士 (Doctoral program)	第 1-2 学期 (Semester 1-2)	第 2-3 学期 (Semester 2-3)	第 4 学期 (Semester 4)	第 6 学期 (Semester 6)	第 6-10 学期 (Semester 6-10)

七、学位授予

留学生博士学位申请与授予工作按照学校相关规定执行。根据《西安交通大学学位授予工作暂行办法》（西交研〔2013〕14号）、《西安交通大学关于研究生学位申请的若干规定》（西交研〔2013〕23号）、《博士学位论文评审实施细则》（西交研〔2013〕73号）、《医学部研究生学位论文质量保障实施细则》等相关文件规定授予

留学生博士学位。

The application and awarding of doctoral degree for international students shall be carried out in accordance with the relevant regulations of the university, include “The Interim Measures for Degrees Awarding in Xi'an Jiaotong University” (Xi Jiao Yan [2013] No. 14), "Several Provisions on Application for Doctoral Degrees by Xi'an Jiaotong University" (Xi Jiao Yan [2013] No. 23), "The Regulations of Doctoral Dissertation Review" (Xi Jiao Yan [2013] No. 73), “The Detailed Regulations for Quality Assurance of Doctoral Dissertation of Health Science Center”, and other relevant documents.

管理学院

School of Management

管理学院

School of Management

西安交通大学管理学院国际研究生中英文培养方案

International Graduate Programs of SOM, XJTU

一、培养目标 (Program objectives)

(一) 国际硕士研究生(Master programs)

- 在研究生学习阶段获得商业管理的知识技能和理论知识;

Obtain intellectual skills and theoretical understandings of business administration at the postgraduate level;

- 通过课程、实验室、项目和独立研究,培养分析、设计和实验能力;

Develop analytical, design, and experimental abilities through courses, labs, projects, and independent research;

- 通过个人或小组研究项目来提高学术研究能力,其中每个学生都有其角色和职责;

Improve academic research abilities by working on individual or group research projects where each student has predefined roles and responsibilities;

- 结合课程学习和实践经验,完成硕士论文。

Finish a master degree thesis, which combines course studies with practical experience.

(二) 国际博士研究生(Doctoral Programs)

- 具有科学的研究方法和严谨的科研作风,良好的合作精神,借鉴前人成果规范标准、研究设计严谨规范、资料收集全面规范、分析工具使用正确;

The candidates should have not only scientific and rigorous research attitude, as well as good cooperation spirit, but also can propose normative research proposal, collect data scientifically and have the ability to use the correct analytical tools for research referring to previous achievements and standards given by academics;

- 具有较强的外语能力,能熟练地运用一种主要外语阅读本学科文献、能进行国际学术交流,能比较熟练地运用一种主要外语撰写论文;

The candidates should be proficient in reading management literature with one of the major foreign languages and use it for international academic communication. In addition, the candidates should have the ability to write papers in the major foreign language;

- 在本学科领域内,具有扎实、宽广、系统的知识结构,掌握并熟练

运用管理方法、定性与定量相结合的系统分析方法和相应的工程技术方法解决管理方面的有关理论与实际问题,能独立从事管理科学与工程学科的教学和研究及组织管理工作;

The candidates are required to have the knowledge structure of management field with solid, extensive and systematic, and the ability to master the use of knowledge of management such as management, economics, organizational behavior, etc. They are also required to have the ability to analyze and propose solutions for different management-related problems and joining the teaching and research work independently;

- 能结合管理实践提炼科学问题,在本学科领域内能做出创造性成果。

The candidates should be capable of refining scientific problems in combination with management practice and make creative achievements in the field of management.

二、研究方向 (Research fields)

工商管理和管理科学与工程下设跨系的研究方向,以强化学科领域的优势,同时适应学科的发展变化和新研究领域的拓展。随着本专业的不断发展和国民经济的需要,本学科将会拓宽研究方向,以适应社会的需要。

In order to strengthen the advantages of discipline and respond to the development and changes of the discipline, cross-disciplinary research directions are set for majors of *Business Administration* and *Management Science and Engineering* to expand new areas of research. With the continuous development of the major and the needs of the national economy, the discipline will broaden the research direction to meet the needs of society.

1、工商管理 (Business Administration) :

(1) 组织行为与人力资源管理

Organizational Behavior & Human Resource Management

(2) 创新创业与战略管理

Innovation, Entrepreneurship & Strategic Management

(3) 营销管理与商务智能

Marketing Management & Business Intelligence

(4) 会计行为与财务创新

Accounting Behavior & Financial Innovation

2、管理科学与工程 (Management Science and Engineering) :

(1) 运营与供应链管理

Operations Management & Supply Chain Management

(2) 信息系统管理与电子商务

Information Systems Management & E-Commerce

(3) 商务大数据分析与管理决策

Business Big Data Analysis & Management Decision

(4) 管理系统工程

Management Systems Engineering

随着本专业的不断发展和国民经济的需要,本学科将会拓宽研究方向,以适应社会的需要。

With the continuous development of the major and the needs of the national economy, the discipline will broaden the research direction to meet the needs of society.

三、学习年限 (Length of program)

• 国际硕士研究生学习年限一般为2年,国际博士研究生学习年限一般为3-5年,经批准可适当延长,延长时间不超过1年。

The general length of Masters' programs is 2 years, and that of doctoral programs is 3 to 5 years. Prolongation (no more than one year) has to be approved by the university.

四、培养方式 (Program overview)

(一) 国际硕士研究生(Master programs)

• 本方案旨在为那些对企业管理领域感兴趣的人提供严格、有纪律和专业的教育。本方案融合了多种课程和严谨的硕士论文要求,具有中国文化品味、商业实践和前沿研究。它为学生提供了灵活性、国际视野和最先进的环境来学习商业管理知识,为追求更高的学位和发展分析和解决实际商业问题的技能和能力打下坚实的基础。

The program aims to offer a rigorous, disciplined, and specialized education for those who are interested in the field of business administration. The program blends a variety of courses and rigorous master thesis works with tastes of Chinese culture, business practices, and cutting-edge research. It provides students with flexibility, international perspective, and the state-of-the-art environment to learn knowledge in business administration and build up a solid foundation for pursuing higher academic degree programs and developing skills and abilities for analyzing and solving practical business issues.

(二) 国际博士研究生(Doctoral Programs)

• 国际博士研究生入学后,由导师负责指导,参加学院各项活动,并在导师的指导下制定个性学习计划;

Each student will be under direct supervision of a faculty member, who helps to make an education plan for the individual student according to her or

his research interest;

• 课程学习一般采用授课或研讨班形式授课。注重学生的个性化培养和创新能力的培养,以提高学生的综合素质和培养质量;

Lessons will be conducted through lectures, interactive discussions, etc. The school pays more attention to foster students' innovation ability and carry out their personalized education in order to improve comprehensive quality;

• 国际博士研究生培养实行中期考核,第4学期由“一级学科研究生培养与学科建设指导小组”组织一次中期考核,考核通过者,继续攻博;不通过者,可以参加下一次的考核,再次考核不通过者,予以退学处理。

The mid-term assessment will be taken in the fourth semester, students who pass the assessment can continue their study while others should make it again, students who did not pass the assessment in the second time will be ordered to quit of school.

五、课程学习 (Course work)

(一) 国际硕士研究生(Master programs)

• 工商管理专业和科学工程专业之学术学位硕士生的课程学习应至少取得30学分,包括:公共课(综合汉语(I)2学分、中国概况(I)2学分)4学分、专业学位课至少12学分,选修课学分根据专业学位课、总学分要求设置且至少14学分。

The academic Master programs in Business Administration and Management Science and Engineering consist of at least 30 credits for course work. Required courses include Comprehensive Chinese I (2 credits), Overview of China I (2 credits), degree courses (no less than 12 credits), and elective courses (set according to degree requirements, no less than 14 credits).

• 必修环节包括:学术活动(讲座)1学分、中期考核3学分。

Other compulsory activities include academic lecture (master) (1 credit) and mid-term assessment (3 credits).

(二) 国际博士研究生(Doctoral Programs)

• 工商管理专业和科学工程专业之学术学位博士生的课程学习应至少取得14学分,包括:公共课(综合汉语(II)2学分、中国概况(II)2学分)4学分、专业学位课至少6学分,选修课学分根据专业学位课、总学分要求设置且至少4学分。

The academic doctoral programs (except in Philosophy, Politics, and Economics) consist of at least 12 credits for course work. Required courses include Comprehensive Chinese II (2 credits), Overview of China II (2

credits), degree courses (no less than 4 credits), and elective courses (set according to degree requirements).

• 必修环节包括：学术活动（讲座）2 学分、开题报告 2 学分、中期考核 6 学分。

Other compulsory activities include: academic lecture (doctor) (2 credits), opening report (2 credits), and mid-term assessment (6 credits).

国际硕士研究生课程设计和学分要求

(Curriculum Design and Credit Requirements of Master Programs)

课程类型 (Course Type)	序号 (NO.)	全校统一编码 (Course Code)	课程名称 (Course Name)	学分 (Credit)	备注 (Note)
公共学位课 (Public Course)	1	LITE610112	中国概况 (I) (Overview of China I)	2	必修 4 学分 (A minimum of 4 credits required)
	2	LITE610227	综合汉语 (I) (Comprehensive Chinese I)	2	
专业学位课 (Degree Course)	1	MAGT840208	管理学基础(英文) (Foundations of Management)	2	至少修 12 学分 (A minimum of 12credits required)
	2	MAGT840608	管理经济学 (Managerial Economics)	2	
	3	MAGT840508	商业统计学 (Business Statistics)	2	
	4	MAGT720308	运筹学 (Operational Research)	2	
	5	MAGT641108	管理研究方法 (Management Research Methods)	2	
	6	MAGT740808	学术论文写作与研究技术应用 (英文) (Application of Research Techniques and Academic Thesis Writing)	2	
选修课 (Elective Course)	1	MAGT840108	组织行为学(英文) (Organizational Behavior)	2	至少修 14 学分 (A minimum of 14 credits required)
	2	MAGT812708	营销管理 (Marketing Management)	2	
	3	MAGT840408	商业道德和企业社会责任 (Business Ethics and Corporate Social Responsibility)	2	
	4	MAGT811908	运营管理(英文) (Operations Management)	2	
	5	MAGT811708	供应链管理(英文) (Logistics and Supply Chain Management)	2	
	6	MAGT811408	网络企业商务模式(英文) (Internet Business Model)	2	
	7	MAGT811308	人力资源管理(英文) (Human Resource Management- A Global Perspective)	2	
	8	MAGT811808	信息管理 (Information Management)	2	
	9	MAGT840708	会计财务(英文) (Advanced Financial Management)	2	
	10	MAGT740908	新企业创立与发展(英文)	2	

			(New Business Creation and Growth)		
	11	MAGT741008	企业业务持续性管理(英文) (Enterprise Business Continuity Management)	1	
	12	MAGT741108	商业分析与数据科学(英文) (Business Analytics and Data Science)	1	
必修环节 (Compulsory Activity)	1	BXHJ6003	学术活动(讲座)(硕) (Lecture)(Master)	1	必修 4 学分 (4 credits required)
	2	BXHJ6007	中期考核 (Mid-term Assessment)	3	

国际博士研究生课程设计和学分要求
(Curriculum Design and Credit Requirements of Doctoral Programs)

课程类型 (Course Type)	序号 (NO.)	全校统一编码 (Course Code)	课程名称 (Course Name)	学分 (Credit)	备注 (Note)
公共学位课 (Public Course)	1	LITE610112	中国概况 (II) (Overview of China II)	2	必修 4 学分 (A minimum of 4 credits required)
	2	LITE610227	综合汉语 (II) (Comprehensive Chinese II)	2	
专业学位课 (Degree Course)	1	MAGT640308	管理研究方法论 (Management Research Methodology)	2	至少修 6 学分 (A minimum of 6 credits required)
	2	MAGT640408	管理理论 (Management Theories)	2	
	3	MAGT640508	经济理论 (Economic Theory)	2	
选修课 (Elective Course)	1	MAGT740508	信息系统管理 (Seminar on Information Systems Research)	2	至少修 4 学分 (A minimum of 4 credits required)
	2	MAGT740608	社会网络分析 (Social Network Analysis)	2	
	3	MAGT740108	生产与物流系统优化 (Production and Logistics System Optimization)	2	
	4	MAGT740708	会计理论和研究 (Accounting Theory and Research)	2	
	5	MAGT740208	营销管理 (Marketing Management)	2	
	6	MAGT740308	技术创新 (Technological Innovation)	2	
必修环节 (Compulsory Activity)	1	BXHJ8003	学术活动(讲座)(博) (Lecture)(Doctor)	2	必修 10 学分 (10 credits required)
	2	BXHJ8004	开题报告 (opening report)	2	
	3	BXHJ8001	中期考核 (Mid-term Assessment)	6	

六、培养环节 (Compulsory Activities)

1. 学术活动 (讲座) (Lectures)

• 国际硕士研究生学术活动 (讲座) 分为必听讲座和选听讲座。必听讲座包括“科学道德与学风建设”1次、“职业生涯发展与规划导论”1次;选听讲座包括与学科紧密相关的“学科前沿系列专题讲座”(由各二级学科组织若干教授对本学科前沿知识进行讲座,每个讲座由5个以上讲座组成)一个系列和在全校范围内选听“学术讲座”1次,完成全部8个讲座后记1学分。

Master students are required to attend 8 lectures, including 2 compulsory (Scientific Morality and Construction of Study Style, and Introduction to Career Development and Planning), 5 regarding discipline-specific forefront information (organized by individual schools), and 1 elective within the university. Students will obtain 1 credit with full attendance to 8 lectures.

• 国际博士研究生学术活动 (讲座) 分为必听讲座和选听讲座。必听讲座为“科学道德与学风建设”;选听讲座包括与学科紧密相关的“学科前沿系列专题讲座”(由各二级学科组织若干教授对本学科前沿知识进行讲座,每个讲座由5个以上讲座组成)一个系列和在全校范围内选听“学术讲座”1次,自己公开讲座1次,完成后记2学分。

Doctoral students are required to attend 7 lectures, including a compulsory (Scientific Morality and Construction of Study Style), 5 regarding discipline-specific forefront information (organized by individual schools), and 1 elective within the university. In addition, they are also required to give a lecture. Students will obtain 2 credits by completing the whole series of activities.

2. 开题报告 (Opening Report)

• 国际硕士研究生应在第二学期7月提交学位论文的开题报告。开题报告的主要内容包括:选题的科学依据、主要研究内容和方案、研究计划及预期进展。学位论文选题报告经指导老师审核、批准后,送学院教务中心,计2学分。

Master students are required to submit the Opening Report at the end of the second semester (in July). The main contents of the Opening Report include the scientific basis of the topic, main research contents, research plan, and the expected progress. The report should be approved by the instructor and sent to the academic affairs of management school. Students who complete this topic selection process can obtain 2 credits.

• 国际博士研究生开题报告应在博士阶段第二学期开始收集有关论

文选题资料及一切准备工作,在指导教师的指导下,通过阅读文献资料,调查实际情况,确定研究课题及课题范围,并结合系(学科方向)的科研任务,发挥导师和博士生的特长,做出创新性的成果。

Doctoral students are required to collect all the materials relevant to topic selection and do the corresponding preparations from the second semester. With the guidance of supervisors, they should achieve innovative results by reading literature, investigating actual conditions, identifying research topic as well as research scope, which should be in accordance with the department's research objectives.

3. 中期考核 (Mid-term Assessment)

• 国际硕士研究生中期考核在第三学期11月或12月进行,考核内容包括:论文研究内容简介、研究进展情况、下一步的工作计划等。中期考核由学院统一组织,国际硕士研究生在参加中期考核前应填写《硕士研究生中期进展报告》并提交学院。中期考核采取研究生汇报(时间不少于15分钟)、专家评审的方式进行。通过中期考核,计6学分;未通过中期考核者,论文答辩和学位会时将作为重点审查对象。

Master students are required to take part in the mid-term assessment in November or December of the third semester. The assessment includes a brief introduction of research, the research progress, and the future research plan, etc. The mid-term assessment shall be uniformly organized by management school. Before participating in the mid-term assessment, students should submit the 'mid-term progress report of master students' to the school. Students are required to give a presentation (no less than 15 minutes) to the experts. Students who pass the assessment can obtain 6 credits, and those who fail the assessment will be regarded as the focus of review in thesis defense and meeting of the degree committee.

• 国际博士研究生中期考核在第四学期末进行,包括:论文的中期报告和口头答辩。论文的中期报告要给出详细的学位论文工作计划、与论文相关的阶段性成果和预期的创新贡献。中期考核前须完成学术活动(讲座)(博)。通过中期考核,计6学分。未通过中期考核,第五学期末再次参加中期考核,仍未通过中期考核,可结业或可退学。

Doctoral students are required to participate in mid-term assessment at the end of the fourth semester, including finishing the Mid-term Report, making a presentation, attending the question and answer session. Mid-term Report should contain a detailed plan of academic work, the staged achievements related to the dissertation, and the expected innovative contributions. Doctoral students must finish the academic activity (lectures). For passing the Mid-Term Assessment, 6 credits will be awarded. Those who

fail to pass the Mid-Term Assessment can participate again at the end of the fifth semester. If failing for the second time, they are advised to terminate their studies or be dropped out.

4. 预答辩 (Final Academic Report/ Pre-defense)

- 预答辩具体要求参照《西安交通大学学位授予工作暂行办法》(西交研〔2003〕14号)。

Specific requirement of pre-defense refer to the Interim Measures for Degree Awarding of Xi'an Jiaotong University (Graduate School XJTU [2003] 14)

- 国际硕士研究生预答辩采取学生汇报、专家评审的方式进行,是对正式答辩的模拟演练,旨在专家对研究生学位论文提出进一步的修改意见。预答辩应于第四学期的三月中旬完成。论文预答辩由国际硕士研究生导师组织,邀请至少三位相关领域教师(不包含学生导师)对论文的主要成果进行评议。(参照《西安交通大学学位授予工作暂行办法》(西交研〔2003〕14号))

Students are required to give a presentation to the experts, which is a simulation exercise of the final defense. The experts will give some revision suggestions for the thesis. The pre-defense is organized by the instructor of the student. It should be completed by the middle of March of the fourth semester. The research will be reviewed by at least three experts, not including the instructor of the student.

- 国际博士研究生预答辩最迟于正式申请论文送审前二个月,进行论文工作总结报告。邀请五位以上相关领域教师对论文的主要成果和创新性等进行评议,广泛听取意见。

The pre-defense assessment of doctoral students should be held two months before the dissertation review. They should make a presentation and get suggestions and comments, with respect to the main achievements and innovation of the dissertation, given by at least five judges in relevant research fields at the assessment meeting.

5. 学位论文 (Thesis/Dissertation)

(一) 国际硕士研究生(Master programs)

- 硕士研究生应在指导教师的指导下,通过阅读文献资料,调查实际情况,确定研究课题及课题范围,并结合系(学科方向)的科研任务,做出创新性的成果。

Under the guidance of the supervisor, the students should confirm their research topic and research scope with their actual situation after literature reading. They are suggested to give full play to the strengths of the supervisor

and themselves, in order to make innovative achievements in the crosses fields.

- 学位论文必须在导师的指导下,由研究生独立完成。学位论文应能表明作者确已在本门学科上掌握了坚实的基础理论和系统的专门知识,并对所研究的课题有新的见解,有从事科学研究的能力。论文格式应符合《西安交通大学研究生学位论文规范》的要求。

The thesis should be finished independently by students under the instruction of supervisors in the School of Management. The thesis should show that the student has really mastered a solid basic theory and systematic expertise in the related subject, and has new insights into the research topic and the ability to engage in scientific research. The format of the thesis should conform to the requirement of graduate school (refers to Graduate Thesis Specifications of Xi'an Jiaotong University).

- 硕士论文基本完成后,由导师组织论文的预答辩,对论文进行质量监督和完善建议。预答辩通过后,学院组织对经过修改并正式提交的论文进行明审、查重和正式答辩。答辩通过后进行匿名评审,论文要求不包含导师及学生姓名,不包含致谢。匿名评审意见返回并通过,方可上学员学术委员会。

The pre-defense is organized by the instructor of the student after the student's thesis is basically completed, the experts need to supervise the quality of the thesis and give revision suggestions. The School of Management will organize another thesis revision for the modified thesis after the pre-defense, also the plagiarism checking and final defense. After passing the defense, the thesis will be evaluated anonymously. The thesis is not required to contain the names of instructor and student, and the acknowledgment page should be removed. The thesis will be admitted to the degree committee if it is approved by the anonymous experts.

- 硕士研究生学位论文答辩按照学校相关文件规定进行(参照《西安交通大学学位授予工作暂行办法》(西交研〔2003〕14号))。

The defense shall be conducted in accordance with relevant documents of the university (Refers to the Interim Measures for Degree Awarding of Xi'an Jiaotong University (Graduate School XJTU [2003] 14).

(二) 国际博士研究生(Doctoral Programs)

- 博士研究生应在博士阶段第二学期开始收集有关论文选题资料及一切准备工作,最迟第三学期末确定论文题目,写出学位论文的选题报告,并在评审会议上报告和征求意见,经指导小组审核,批准后送学院教务中心。

In the second semester, doctoral students should start to collect all the

materials relevant to topic selection and do the corresponding preparations. doctoral students must finish the Opening Report and attend an opening assessment by the end of the third semester at the latest.

- 博士研究生应不迟于博士阶段第五学期完成学位论文的中期报告，给出详细的学位论文工作计划、与论文相关的阶段性成果和预期的创新贡献。博士研究生在正式博士学位论文答辩前，必须做一次有关学位论文的公开报告。

Doctoral students should complete the Mid-term Report no later than the 5th semester, which should contain a detailed plan of academic work, the staged achievements related to the dissertation, and the expected innovative contributions. doctoral students must make a public report on their dissertations before attending the final defense.

- 博士研究生的学位论文预答辩。最迟于正式申请论文送审前二个月，进行论文工作总结报告。邀请五位以上相关领域教师对论文的主要成果和创新性等进行评议，广泛听取意见。博士研究生在正式博士学位论文答辩前，必须做一次有关学位论文的公开报告。

The pre-defense assessment of doctoral students should be held two months before the dissertation review. They should make a presentation and get suggestions and comments, with respect to the main achievements and innovation of the dissertation, given by at least five judges in relevant research fields at the assessment meeting.

- 博士研究生的学位论文完成后应按照规定进行论文送审。必须经过至少三位专家公开评审，两位校外专家，一位校内专家。评审意见返回并通过、论文创新分评价达到规定后，方可申请答辩。

Dissertation review should be carried out according to the rule of the university. There should be 3 reviews at least, consisting of two external and one internal. Only getting the opinions given by reviewers and meeting the criteria of dissertation innovation can apply for degree dissertation defense be submitted.

- 博士研究生的学位论文答辩按照学校相关文件规定(参照《西安交通大学学位授予工作暂行办法》(西交研〔2003〕14号))进行。

The arrangement of degree dissertation defense is implemented in accordance with relevant rules of Xi'an Jiaotong University(Referring to the Interim Measures for Degree Awarding of Xi'an Jiaotong University (Graduate School XJTU [2003] 14))

七、培养环节时间节点 (Timeline and milestones)

	课程学习 (Course Work)	开题报告 (Opening Report)	中期考核 (Mid-term Assessment)	预答辩 (Final Academic Report)	论文答辩 (Thesis/Dissertation Defense)
硕士(Master program)	1 st - 3 rd semester	End of 2 nd semester	End of 3 rd semester	End of march, 4 th semester	May, 4 th semester
博士 (Doctoral program)	Before 4 th semester at latest	2 nd semester Or 3 rd semester at latest	4 th semester or 5 th semester at latest	2 months before the dissertation review	/

外国语学院

School of Foreign Studies

外国语学院

School of Foreign Studies

一、培养目标 (Program objectives)

外国语言文学国际硕士研究生项目着力培养了解中国和中国文化,掌握坚实的外国语言文学基础理论和系统的专业知识;具有从事外语教学与研究、或独立担负与本学科相关的专门技术工作的能力、并能进行高效跨文化交际的国际高素质人才。

The master degree programs for international students in Foreign Languages and Literatures prepare students in learning about China and Chinese culture, and mastering the basic theories and systematic knowledge of a foreign language and literature; and aim to graduate students with capabilities and skills to engage in teaching and research of foreign language, to carry out independent specialized linguistics- or -literature related research work, and to conduct cross-culture communication.

语言文化系统学国际博士研究生项目着力培养了解中国和中国文化,具有交叉学科思维能力,掌握本学科宽广的基础理论、系统的专门知识和扎实的研究方法,具备无障碍的国际学术交流能力,能解决复杂社会网络环境下的语言文化问题,并能够产出创造性成果的国际高素质复合型人才。

The doctoral program of Systemic Studies of Language and Culture prepares students in extensive knowledge about China and Chinese culture, interdisciplinary thinking ability, mastery in all-around basic theories of the discipline, systematic knowledge and solid research methods. The program will enable the students to communicate freely in international academic sphere, and to resolve the language and cultural problems in the context of complex social networks, and to make innovative academic achievements.

二、研究方向 (Research fields)

外国语言文学国际硕士研究生项目设置五个研究方向:

1. 英语语言文学
2. 外国语言学及应用语言学
3. 日语语言文学
4. 国别与区域研究
5. 比较文学与跨文化研究

For master's programs, five fields of studies recruit international students in Foreign Languages and Literatures:

1. English Language and Literature
2. Foreign Linguistics and Applied Linguistics
3. Japanese Language and Literature
4. International and Area Studies
5. Comparative Literature and Intercultural Studies

语言文化系统学国际博士研究生项目设置四个研究方向:

1. 语言系统与语言习得研究
2. 复杂系统理论下的翻译研究
3. 动态复杂系统下的文学文本研究
4. 国际问题与舆情分析研究

For doctoral program in Systemic Studies of Language and Culture, there are also four fields of studies for international students:

1. Language System and Language Acquisition
2. Translation Studies under Complex Systems Theory
3. Studies of Literary Texts in the Dynamic and Complex System
4. International Issues and Public Opinions Studies

三、学习年限 (Length of program)

国际硕士研究生学习年限一般为2-3年,国际博士研究生学习年限一般为3-5年,经批准可适当延长,延长时间不超过1年。

The general length of masters programs is 2 to 3 years, and that of doctoral program is 3 to 5 years. Prolongation (no more than one year) is subject to be approved by the university.

四、培养方式 (Program overview)

1. 培养原则 (Program Principles)

实行导师负责制,提倡指导教师个别辅导与专业方向指导小组集体培养相结合的培养方法。

The programs for international students are based on the supervisor responsibility system. Programs combine one-on-one tutor from supervisors and collective instructing team in the respective field of studies.

2. 培养计划 (Program Plan)

学生入学后,由导师根据本方案的要求及国际学生个人特点及具体情

况出发，与学生一起制定培养计划，指导学生的选课、论文选题、文献查阅、调研及科研工作、论文的撰写和答辩等。鼓励国际学生进行与其本国实际相结合、或将其本国实际与中国进行对比研究的学位论文选题。

After registration, the supervisor will help the student to work out students' program plan according to requirements of the Program, and student individual characteristics and needs. In addition, the supervisor will help the student in selection of courses, topic selection of dissertation, literature searching, investigation and scientific research dissertation writing and defense, etc. International students are encouraged to work on the dissertation topics combined with the realities of their homeland, or comparative studies between their home country and China.

3. 课程学习及课堂教学 (Course Work and Teaching)

课程学习由学位课程（包括公共学位课和学科学位课）和非学位课程组成。学位必修课学分一般在第一学年内完成，其他课程学分可在第二学年内完成。学位课程一般采用讲课或研讨形式。实现理论学习和科学研究相结合，科研方法训练与应用能力培养相结合，使学生尽快具备独立从事科学研究工作的能力。

The curriculum for the programs consists of degree courses (including public and specialized degree courses) and non-degree courses. Generally, the completion of the required credits of compulsory degree courses shall be within the first academic year, and that of the others within the second year. Degree courses are offered through lectures or seminars wherein students experience the combination of theoretical learning and scientific research, and also the integrated cultivation of scientific research methods and application ability, so that students are able to engage in independent scientific research.

4. 学术活动(Academic Activities)

导师负责督促学生积极参加各类院内及校内的各种学术活动与公益活动（包括政治理论学习、专业学术活动、公益活动），鼓励学生申请学术研究基金，参加社会科学研究活动。博士研究生须在第二学年结束之前至少主持一次学术研讨会，并至少作两次学术讲座。

Supervisors will motivate students to take active part in a variety of academic activities (including political theory learning and specialized academic activities) and non-profit activities in the university and beyond, encourage students to apply for grants of support for academic research and participate in studies in social science. Doctoral students are required to preside over at least one academic seminar and give at least two academic lectures before the end of the second academic year.

五、课程学习(Course work)

(一) 国际硕士研究生(Master programs)

课程应至少取得 26 学分，包括：公共学位课（综合汉语（I）2 学分、中国概况（I）2 学分）4 学分、学科学位课至少 8 学分，学科选修课 14 学分。

必修环节应取得 4 学分，包括：学术活动（讲座）1 学分、中期考核 3 学分。

Students are required to accomplish at least 26 credits for courses, including:

- 4 credits for public courses, (2 credits in *Chinese Language I*, 2 credits for the *Overview of China*);
- 8 credits for discipline degree courses;
- 14 credits for discipline electives;

The accomplishment of 4 credits in compulsory activities is also required, including

- 1 credit for academic activities;
- 3 credits for mid-term assessment.

国际硕士研究生课程设置和学分要求

Curriculum Design and Credit Requirements of Master Programs

(英语语言文学)

(English Language and Literature)

课程类型 (Course Type)	序号 (N.O.)	全校统一编码 (Course Code)	课程名称 (Course Name)	学分 (Credit)	备注 (Note)
公共学位课 (Public Course)	1		中国概况（一） Outline of China（一）	2	必修 4 学分 4 credits required
	2		综合汉语（一） Comprehensive Chinese（一）	2	
学科学位课 (Discipline Degree Course)	1	ENGL610612	西方文论选读 Selected Readings of Western Literature Theories	2	必修 8 学分 8 credits required
	2	ENGL610712	美国小说概况 Introduction to American Short Stories	2	
	3	ENGL610912	英国小说选萃 Selected Readings of English Short Stories	2	

课程类型 (Course Type)	序号 (N O.)	全校统一编码 (Course Code)	课程名称 (Course Name)	学分 (Credit)	备注 (Note)
	4	ENGL611412	文化批评：理论与实践 Cultural Studies: Theory and Practice	2	
学科选修课 (Discipline Elective Course)	1	ENGL611012	二十世纪美国戏剧 American 20 th Century Dramas	2	必选 14 学分 14 credits required
	2	ENGL711412	莎士比亚戏剧 Shakespeare's Plays	2	
	3	ENGL713012	美国文学专题研究 Key Topics in American Literary Studies	1	
	4	ENGL712412	比较文学 Comparative Literature	2	
	5	ENGL711312	文化人类学 Cultural Anthropology	2	
	6	ENGL713112	中西文化比较 The Comparison Between Chinese and Western Cultures	2	
	7	ENGL713812	世界史 World History	2	
	8	ENGL710312	文体学 Stylistics	2	
	9	ENGL711912	欧洲现当代社会与文化 Modern and Contemporary Society and Culture of Europe	2	
	10	ENGL710212	跨文化交际研究 Intercultural Communication Studies	2	
	11	ENGL610412	学术英语写作 English Writing for Academic Purposes	2	
必修环节 (Compulsory Activity)	1	BXHJ600399	学术活动（讲座）硕 Academic Activities (Lectures) for Masters	1	必修 4 学分 4 credits required
	2	BXHJ600799	中期考核（硕） Mid-Term Assessment (Masters)	3	

(Foreign Linguistics and Applied Linguistics)

课程类型 (Course Type)	序号 (NO.)	全校统一编码 (Course Code)	课程名称 (Course Name)	学分 (Credit)	备注 (Note)
公共学位课 (Public Course)	1		中国概况（一） Outline of China（一）	2	必修 4 学分 4 credits required
	2		综合汉语（一） Comprehensive Chinese（一）	2	
学科学位课 (Discipline Degree Course)	1	ENGL610212	第二语言习得理论 Second Language Acquisition Theories	2	必修 8 学分 8 credits required
	2	ENGL610312	语言研究设计与方法 Research Design and Research Methods	2	
	3	ENGL610412	学术英语写作 English Writing for Academic Purposes	2	
	4	ENGL611212	理论语言学 Theoretical Linguistics	2	
	5	ENGL710812	语义学 Semantics	2	
	6	ENGL710712	心理语言学 Psychological Linguistics	2	
学科选修课 (Discipline Elective Course)	1	ENGL610512	教学法理论与实践 Theories and Practice in Teaching Methods	2	必选 14 学分 14 credits required
	2	ENGL710512	篇章语言学 Text Linguistics	2	
	3	ENGL710612	社会语言学 Social Linguistics	2	
	4	ENGL711812	语料库语言学 Corpus Linguistics	2	
	5	ENGL711112	专门用途英语 English for specific purpose(ESP)	2	
	6	ENGL711012	西方翻译理论 Western Translation Theories	2	
	7	ENGL712512	语言与大脑 Language and Brain	2	
	8	ENGL710912	语言测试学 Studies on Language Testing	2	
	9	ENGL712112	语言测量与统计	2	

国际硕士研究生课程设计和学分要求
Curriculum Design and Credit Requirements of Master Programs
(外国语言学及应用语言学)

课程类型 (Course Type)	序号 (NO.)	全校统一编码 (Course Code)	课程名称 (Course Name)	学分 (Credit)	备注 (Note)
			Language Measurement and Statistics		
	10	JAPN711412	实验语音学 Experimental Phonetics	1	
	11	ENGL713612	脑电技术与语言加工 Electrophysiological Technique and Language Processing	2	
	12	ENGL713212	语用学导论 Pragmatics: An Introduction	2	
	13	ENGL713312	语言政策与规划 Language Policy and Planning	2	
必修环节 (Compulsory Activity)	1	BXHJ600399	学术活动(讲座)硕 Academic Activities (Lectures) for Masters	1	必修 4 学分 4credits required
	2	BXHJ600799	中期考核(硕) Mid-Term Assessment (Masters)	3	

课程类型 (Course Type)	序号 (NO.)	全校统一编码 (Course Code)	课程名称 (Course Name)	学分 (Credit)	备注 (Note)
(Discipline Elective Course)			Modern and Contemporary Japanese Literature	2	14 credits required
	2	JAPN710912	中日对比语言学 Comparative Linguistics of Chinese and Japanese	2	
	3	JAPN710312	社会语言学(日) Social Linguistics (Japanese)	2	
	4	JAPN710612	交际语言学(日) Communicative Linguistics (Japanese)	2	
	5	ENGL712412	比较文学(跨语种平台课) Comparative Literature (Cross-Language Platform Course)	2	
	6	PHLS611110	现代西方哲学专题 Research on Modern Western Philosophy	2	
	7	PHLS711910	中国美学思想专题研究 Research on Chinese Aesthetic Ideology	2	
	8	PHLS711210	美学与现代性专题研究 Topics in the History of Science and Technology	2	
	9	ENGL610212	第二语言习得理论 Second Language Acquisition Theories	2	
	10	ENGL710912	语言测试学 Studies on Language Testing	2	
	11	JAPN711312	当代日本学研究方法论 Theories And Methods in Modern Japanese Studies	2	
	12	JAPN711412	实验语音学 Experimental Phonetics	1	
	13	ENGL713512	国际问题研究理论与方法 International Studies: Theories and Methods	2	
	14	ENGL711312	文化人类学 Cultural Anthropology	2	
	15	ENGL713912	跨文化教育 Intercultural Education	2	
必修环节 (Compulsory Activity)	1	BXHJ600399	学术活动(讲座)硕 Academic Activities (Lectures) for Masters	1	必修 4 学分 4 credits required
	2	BXHJ600799	中期考核(硕) Mid-Term Assessment (Masters)	3	

国际硕士研究生课程设计和学分要求

Curriculum Design and Credit Requirements of Masters Programs

(日语语言文学)

(Japanese Language and Literature)

课程类型 (Course Type)	序号 (NO.)	全校统一编码 (Course Code)	课程名称 (Course Name)	学分 (Credit)	备注 (Note)
公共学位课 (Public Course)	1		中国概况(一) Outline of China (一)	2	必修 4 学分 4 credits required
	2		综合汉语(一) Comprehensive Chinese (一)	2	
学科学位课 (Discipline Degree Course)	1	JAPN610812	日语语言学 Japanese Linguistics	2	必修 8 学分 8 credits required
	2	JAPN610712	日本文化研究 Studies on Japanese Culture	2	
	3	JAPN711212	日本文学理论 Japanese Literature Theories	2	
	4	JAPN710412	语言研究方法论(日) Language Research Methodology (Japanese)	2	
学科选修课	1	JAPN610612	日本近现代文学		必选 14 学分

国际硕士研究生课程设计和学分要求
Curriculum Design and Credit Requirements of Masters Programs
(国别与区域研究)
(International and Area Studies)

课程类型 (Course Type)	序号 (NO.)	全校统一编码 (Course Code)	课程名称 (Course Name)	学分 (Credit)	备注 (Note)
公共学位课 (Public Course)	1		中国概况 (一) Outline of China (一)	2	必修 4 学分 4 credits required
	2		综合汉语 (一) Comprehensive Chinese (一)	2	
学科学位课 (Discipline Degree Course)	1	ENGL713512	国际问题研究理论与方法 International Studies: Theories and Methods	2	必修 8 学分 8 credits required
	2	ENGL712612	舆情学 Public Opinions Studies	2	
	3	ENGL611312	国际政治与经济 International Studies	2	
	4	ENGL711312	文化人类学 Cultural Anthropology	2	
学科选修课 (Discipline Elective Course)	1	ENGL713412	国际传播与跨文化交际 International and Intercultural Communication	2	必选 14 学分 14 credits required
	2	ENGL713112	中西文化比较 Semantics	2	
	3	ENGL713812	世界史 World History	2	
	4	ENGL713912	跨文化教育 Intercultural Education	2	
	5	ENGL711812	语料库语言学 Corpus Linguistics	2	
	6	ENGL71051	篇章语言学 Text Linguistics	2	
	7	ENGL712412	比较文学 (跨语种平台课) Comparative Literature (Cross-Language Platform Course)	2	
	8	POLI710514	比较政治学研究 Corpus Linguistics	2	

课程类型 (Course Type)	序号 (NO.)	全校统一编码 (Course Code)	课程名称 (Course Name)	学分 (Credit)	备注 (Note)
	9	INTE710219	国际贸易理论、政策与战略 English for specific purpose(ESP)	2	
	10	SOCL712510	全球视野下的中国 Language and Brain	3	
	11	CUIC712210	International Communication	2	
	12	ENGL711912	欧洲现当代社会与文化 Modern and Contemporary Society and Culture of Europe	2	
必修环节 (Compulsory Activity)	1	BXHJ600399	学术活动 (讲座) 硕 Academic Activities (Lectures) for Masters	1	必修 4 学分 4credits required
	2	BXHJ600799	中期考核 (硕) Mid-Term Assessment (Masters)	3	

国际硕士研究生课程设计和学分要求
Curriculum Design and Credit Requirements of Master Programs
(比较文学与跨文化研究)
(Comparative Literature and Transcultural Studies)

(Comparative Literature and Transcultural Studies)

课程性质	序号	全校统一编码	课程名称	学分	备注
公共学位课 (Public Course)	1		中国概况 Overview of China	2	必修 4 学 分 4 credits required
	2		综合汉语 Comprehensive Chinese	2	
学科学位课 (Discipline Degree Course)	1	ENGL710212	跨文化交际研究 Intercultural Communication Studies	2	选修 ≥ 8 学分 8 credits required
	2	ENGL711312	文化人类学 Cultural Anthropology	2	
	3	ENGL610312	语言研究设计与方法 Research Design and Research Methods	2	
	4	ENGL712412	比较文学 Comparative Literature (Cross-Language Platform Course)	2	
	5	ENGL710512	篇章语言学	2	

			Text Linguistics		
	6	ENGL713412	国际传播与跨文化交际 International and Intercultural Communication	2	
学科选修课 (Discipline Elective Course)	1	ENGL712612	舆情学 Public Opinions Studies	2	选修 ≥ 14 学分 14 credits required
	2	ENGL810712	跨文化研究专题 (硕、博) Cross-cultural Studies	2	
	3	ENGL710612	社会语言学 Social Linguistics	2	
	4	ENGL713912	跨文化教育 Intercultural Education	2	
	5	ENGL711812	语料库语言学 Corpus Linguistics	2	
	6	ENGL713112	中西文化比较 The Comparison Between Chinese and Western Cultures	2	
	7	ENGL612412	文化批评: 理论与实践 Cultural Studies: Theory and Practice	2	
	8	ENGL711912	欧洲现当代社会与文化 Modern and Contemporary Society and Culture of Europe	2	
	9	ENGL713312	语言政策与规划 Language Policy and Planning	1	
	10	SOCL650118	管理沟通 (春季) Management Communication	2	
	2		在研究生通选课程目录中至少选一门 Any one course from the graduate general course catalog	/	
必修环节 (Compulsory Activity)	1	BXHJ600399	学术活动 (讲座) 硕 Academic Activities (Lectures) for Masters	1	必修 4 学分 4 credits required
	2		开题报告 (Opening Report on Dissertation Topic)	1	
	3	BXHJ600799	中期考核 (硕) Mid-Term Assessment (Masters)	3	

(二) 国际博士研究生(Doctoral program)

课程应至少取得 14 学分，包括：公共学位课（中国概况 2 学分、综合汉语 2 学分）4 学分、学科学位课至少 4 学分，学科选修课 6 学分。

必修环节应取得 10 学分，包括：学术活动（讲座）2 学分、开题报告 2 学分，中期考核 6 学分。

Students are required to accomplish at least 12 credits for courses, including:

- 4 credits for public courses, (2 credits in Overview of China, 2 credits in Comprehensive Chinese) ;

- 4 credits for discipline degree courses;

- 6 credits for discipline electives;

The accomplishment of 10 credits in compulsory activities is also required, including

- 2 credits for academic activities;

- 2 credits for opening report on dissertation topic;

- 6 credits for mid-term assessment.

国际博士研究生课程设置和学分要求

Curriculum Design and Credit Requirements of Doctoral Program

课程类型 (Course Type)	序号 (number)	全校统一编码 (Course Code)	课程名称 (Course Name)	学分 (Credit)	备注 (remarks)
公共学位课 (Public Course)	1	LITE6101	中国概况 (Overview of China)	2	必修 4 学分 A minimum of 4 credits required
	2	LITE6102	综合汉语 (Comprehensive Chinese)	2	
学科学位课 (Discipline Degree Course)	1	ENGL8101	跨学科语言文化研究方法 Cross-disciplinary Research Methodology in Language and Culture	2	必修 4 学分 A minimum of 4 credits required
	2	ENGL8102	语言哲学 Philosophy of Language	2	
	3	ENGL8103	语言的计量与计算 Statistics and Quantitative Linguistics	2	
学科选修课 (Discipline Elective Course)	1	ENGL8105	翻译前沿理论及技术应用 Frontier Theories in Translation and Technology Application	2	选修 4 学分，其中至少 2 学分选修跨专业基础课或研究方法课 4 credits required, including at least 2 credits in Cross-disciplinary Basic
	2	ENGL8106	西方文学理论与批评 Theory and Criticism of Western Literature	2	
	3	ENGL8107	跨文化研究专题 Cross-cultural Studies	2	
	4	ENGL8108	语言学研究前沿专题 Frontiers of Linguistics	2	

	5	ENGL7126	舆情学 Public Opinion Studies	2	Courses or Research Methods Courses
	6	ENGL7125	语言与大脑 Languages and the Brain	2	
	7	/	跨专业基础课或研究方法课 Cross-disciplinary Basic Courses or Research Method Courses	2	
必修环节 (Compulsory Activity)	1	BXHJ800399	学术活动(讲座)博 Academic Activities (Lectures) for Doctors	2	必修 10 学分 10 credits required
	2	BXHJ800499	开题报告(博) (Opening Report on Dissertation Topic)	2	
	3	BXHJ800199	中期考核(博) (Mid-term Assessment)	6	

六、培养环节 (Compulsory Activities)

1. 学术活动 (讲座) (Lectures)

•国际硕士研究生学术活动(讲座)分为必听讲座和选听讲座。必听讲座包括“科学道德与学风建设”1次、“职业生涯发展与规划导论”1次;选听讲座包括与学科紧密相关的“学科前沿系列专题讲座”(由各二级学科组织若干教授对本学科前沿知识进行讲座,每个讲座由5个以上讲座组成)一个系列和在全校范围内选听“学术讲座”1次,完成全部8个讲座后记1学分。

•Masters students are required to attend 8 lectures, including 2 compulsory lectures (Scientific Morality and Construction of Study Style, and Introduction to Career Development and Planning), 5 lectures regarding discipline-specific forefront development (organized by individual schools), and 1 elective lecture in the university. Students will obtain 1 credit with full attendance to 8 lectures.

•国际博士研究生学术活动(讲座)分为必听讲座和选听讲座。必听讲座为“科学道德与学风建设”;选听讲座包括与学科紧密相关的“学科前沿系列专题讲座”(由各二级学科组织若干教授对本学科前沿知识进行讲座,每个讲座由5个以上讲座组成)一个系列和在全校范围内选听“学术讲座”1次,自己公开讲座1次,完成后记2学分。

•Doctoral students are required to attend 7 lectures, including one compulsory lecture (Scientific Morality and Construction of Study Style), 5 lectures regarding discipline-specific forefront development (organized by individual schools), and 1 elective lecture in the university. In addition, they

are also required to give a lecture. Students will obtain 2 credits by completing the whole series of activities.

2. 开题报告 (Opening Report on Dissertation Topic)

开题报告是开展学位论文工作的基础,也是保证学位论文质量的重要环节。

The opening report on dissertation topic serves as the basis to carry out the dissertation studies and essential part to guarantee the quality of it.

国际研究生应在指导教师的指导下,通过阅读文献资料、调研,确定研究课题及课题范围。鼓励学生将研究课题与其本国实际相结合,或将其本国实际与中国进行对比研究。研究生需制定论文工作计划,做好开题报告准备,开题报告须在第三学期内完成。

International students shall decide on the dissertation topic and subject scope under the guidance of their supervisor through reading literature works and doing preliminary studies. Students are encouraged to work on research combining with realities of their homelands, or some comparative research on realities between their homelands and China. Students are required to make plans about their dissertation studies and prepare for their opening report. The dissertation opening report of master program shall be finished before the end of the third semester.

国际硕士生生的开题报告应包括文献综述和详细的研究思路,篇幅不少于6000字(按各方向语种计算),要求统一格式,开题一年后方可申请答辩。开题报告需在不少于3位本学科专家组成的论证会上就课题的研究范围、意义和价值、拟解决的问题、研究方案及研究进度等做出说明,并进行可行性论证,经认可后才能进行课题研究。在学期间转专业、转导师以及在论文研究工作过程中,论文课题有重大变动的研究生,应依据现导师的意见,决定是否重新做开题报告。

For master students, the opening report shall include literature review and detailed roadmap of the dissertation research, and the length of the report should be no less than 6000 words (words are counted according to the individual language) and the format standardized by school. The application of dissertation defense is submitted one year after the approval of the opening report. In opening report, masters students shall expound the research scope, significance and values, problem to be solved or question go answer, research approaches and progress at the reviewing panel that consist of at least 3 subject-related specialists, and give argument about feasibility of the dissertation. Only after the approval of the panel can the students continue their dissertation studies. Those students, who change their major, supervisor, or have tremendous change in dissertation topic in their program, can start a

new opening report after the approval of their supervisor.

国际博士研究生完成开题报告之前，需完成 80 篇以上文献阅读，并撰写不少于 1 万字的书面开题报告。开题报告包括：文献综述、选题背景及意义、研究基础、研究内容、工作难点及特色、预期成果以及可能产生的创新点等。开题报告需在不少于 3 位本学科和相关学科教授或博士组成的专家论证会上就课题的研究范围、意义和价值、拟解决的问题、研究方案及研究进度等做出说明，并进行可行性论证，经认可后才能进行课题研究。交叉培养项目以及跨学科的论文选题应聘请相关学科的专家参加。在学期间转专业、转导师以及在论文研究工作过程中，论文课题有重大变动的研究生，应依据现导师的意见，决定是否重新做开题报告。

Doctoral students shall finish reading no less than 80 literature works, and submit a written opening report of at least 10,000 words on their dissertation topic, covering literature review, research background and significance, research foundation, research contents, methodology, challenges and features, expected results, and possible novelty. Students are required to expound the research scope, significance and values, problems to be solved, research approaches and progress, and give argument about dissertation feasibility at the demonstration meetings that consist of at least 3 subject-related professors and teachers with doctoral degree. Only after the approval can students continue their dissertation studies. As for cross-discipline programs and topic selection of inter-disciplinary dissertation, discipline-related specialists shall be invited. Those students, who change majors, change supervisors, or have tremendous change in dissertation topic during their programs, can start a new opening report according to approval and opinions of supervisors.

3. 中期考核 (Mid-term Assessment)

国际研究生在第四学期需参加中期考核。

International students shall take mid-term assessment at the fourth semester.

国际硕士研究生中期考核包括选题报告完成质量考核、硕士研究生中期进展考核、以及科研（教学、笔译）专业实践考核。中期考核报告应重点汇报研究生本人的工作，篇幅不少于 1 万字。科研（教学、翻译）实践要求：参与导师的科研活动，并撰写不少于 2000 字的总结；或导师指导下在本校进行教学实践不少于 16 学时；或进行不少于 5000 字的笔译实践。

The mid-term assessment for master's students shall include assessment of opening report on topic selection, mid-term report on research progress, and assessment of professional practice of scientific research (teaching and translation). The mid-term assessment shall focus on students' own academic

efforts, with at least 10,000 words. Doctoral students are required to participate in supervisors' scientific research, and make a summary with no less than 2000 words, or have no less than 16 hours of teaching in the university under the guidance of their supervisor or translation practice of no less than 5000 words.

国际博士研究生由学院组织专家对学生的课程学习情况、科学研究工作进展状况、以及学生的综合能力等方面进行全方位考察。中期考核的内容包括学科基础综合考试、研究进展报告和综合能力考核三个方面。中期考核以学术活动的形式在学院内公开进行，考核小组由 5-7 名本学科或相关学科教师组成。博士研究生在参加中期考核前，需向学院提交由导师签字的课程成绩、课题研究进展报告等书面材料。考核通过者继续攻博；不通过者可以参加下一次的中期考核，仍未通过者可被终止攻读博士学位。

Specialist panels shall be established by the respective school to conduct all-around assessment about doctoral students' course learning, progress of scientific research, and their comprehensive ability. The mid-term assessment of doctoral students shall be organized in the form of an academic activity in the school, and the reviewing panel shall consist of 5-7 subject-related professors. The contents of the mid-term assessment shall include three aspects: comprehensive assessment of the student's discipline foundation, research progress report, and comprehensive ability assessment. Before the assessment, certain written materials shall be submitted, including course studies results signed by their supervisor, research progress report of the dissertation, etc. The doctoral students who pass the assessment shall be permitted to continue their dissertation studies. For those who fail, they shall attend the next mid-term assessment. If they still cannot pass the assessment, the doctoral degree shall be terminated.

4. 预答辩 (Pre-defence Reporting on Dissertation Work)

学位论文完成后必须在系（所）单位内组织预答辩，一般在正式答辩前三个月进行。预答辩由学院统一组织，研究生需在不少于 3 位本学科和相关学科教师或专家组成的预答辩委员会上报告自己的研究成果。预答辩委员重点检查学位论文内容的创新性、学术水平、论文工作量、研究成果、有无违反学术规范现象等，并指出论文中存在的不足和问题，提出改进意见。预答辩通过后，修改并正式提交学位论文，方可报学院批准，进行论文评阅和学位论文答辩（参照《西安交通大学学位授予工作暂行办法》（西交研〔2003〕14号））。

After the completion of dissertation studies, students are required to participate in the pre-defence reporting on dissertation work in their

department (or institute) organized by the respective school, usually three months before the final dissertation defense. The pre-defense panel shall consist of at least 3 subject-related professors and specialists. The panel shall review the students' presentation on their research results and focus on the novelty of the dissertation, academic levels, dissertation work, research results, and academic misconducts. In addition, comments shall be made on students' deficiency and problems as well as suggestions for dissertation improvement. International students who pass the pre-defense report shall refine the dissertation and submit their final version of the dissertation. After the approval of the school, students shall have their dissertation reviewed, and participate in the final dissertation defense (abide by *Provisional Measures for XJTU Degree Conferring*, No. 14 document from XJTU Graduate School, 2003)

5. 学位论文 (Dissertation)

国际硕士研究生:

International master students are required:

(1) 应在指导教师的指导下, 独立完成硕士学位论文的撰写。鼓励国际学生进行与其本国实际相结合、或将其本国实际与中国进行对比研究的学位论文选题。

a. to independently complete their dissertation with the guidance of their supervisor. Students are encouraged to combine their dissertation studies with the realities of their homelands, or engage in comparative studies on the realities between their homelands and China.

(2) 论文从选题到撰写过程中, 学生应定期报告论文进展情况 (每月不少于 1 次), 解决论文工作进展中的难点, 及时获得导师及指导团队的指导。

b. to present periodic reports about dissertation progress (at least once a month), solving of the difficulties encountered, and consulting supervisor and instructing team for advice in the process of dissertation studies from topic selection to drafting.

(3) 国际硕士生论文工作时间不得少于一年。

c. to have no less than 1 year of working time on dissertation studies.

(4) 论文答辩按照《外国语学院硕士研究生学位申请实施细则》要求执行。

d. to participate in dissertation defense stipulated in *Measures for the Implementation of Mater Degree Application in School of International Studies*.

国际博士研究生:

International doctoral students are required:

(1) 应在指导教师的指导下, 独立完成博士论文的撰写。鼓励国际学生进行与其本国实际相结合、或将其本国实际与中国进行对比研究的学位论文选题; 支持国际博士生进行创新性和预期有较大创造性成果的风险性学位论文选题。

a. to complete master's dissertation independently with the guidance of their supervisor. Students are encouraged to combine their dissertation studies with the realities of their homelands, or some comparative research on the realities between their homelands and China. Innovative but risky dissertation that has high anticipation of great creative achievement is appreciated.

(2) 国际博士生论文工作时间不得少于两年。

b. to have no less than 2 years of working time on the dissertation studies.

(3) 国际博士生在申请学位答辩时, 必须按照《外国语学院博士研究生学位申请实施细则》发表学术论文的要求执行, 提供以西安交通大学外国语学院为第一署名单位的学术论文原件资料以及科研成果的相关证明。

c. To abide by the dissertation publication requirement in *Measures for the Implementation of Doctoral Degree Application in School of International Studies*, provide original material of academic dissertation with the School of Foreign Studies of XJTU as the first signature unit and relevant proof of scientific research results when applying for doctoral dissertation defense.

(4) 论文答辩按照《外国语学院博士研究生学位申请实施细则》要求执行。

d. to participate in dissertation defense abided by *Measures for the Implementation of Mater Degree Application in School of International Studies*.

七、培养环节时间节点(Timeline and milestones)

	课程学习 (Course Work)	开题报告 (Opening Report on Dissertation Topic)	中期考核 (Mid-term Assessment)	预答辩 (Pre-dissertation Defense Reporting)	论文答辩 (Thesis/Dissertation Defense)
硕士(Master program)	第一学年 First Semester	第三学期 Third Semester	第四学期 Fourth Semester	答辩前三个月 3 Months Before the Final Defense	第三学年 Third academic year
博士 (Doctoral program)	第一学年 First Semester	第三学期 Third Semester	第四学期 Fourth Semester	答辩前三个月 3 Months Before the Final Defense	第三至第五学年 Third to Fifth Academic Year

