农村发展(095138)全日制硕士培养方案（专硕）

Rural Development

一、基本信息 Basic Information

院系名称 School	(150)农业与生物学院 School of Agriculture & Biology			适用年级 Grade	2024
适用专业 Major	农村发展(095138) Rural Development				
项目类型 Program Type	全日制硕士				
最低学分 Min Credit	30	最低GPA学分 Min GPA Credit	18	最低GPA Min GPA	2.7

二、学科简介 Introduction

农村发展领域是以农村经济与社会可持续发展为研究对象，利用经济学、管理学、社会学、发展规划等多学科的理论与方法，探讨农村发展的过程、模式、机制、问题以及政策。以乡村振兴战略为标志，国家与地方政府对农业农村发展的关注程度不断提升，相关领域研究逐渐成为热点，人才队伍培养受到重视。1999年国务院学位委员会批准设立农业推广硕士专业学位，农村与区域发展是其领域之一。2014年国务院学位委员会第三十一次会议将农业推广硕士更名为农业硕士，农村与区域发展领域更名为农村发展。

农村发展领域农业硕士是与该领域任职资格相联系的专业学位，主要为政府部门、事业单位、科研机构和社会组织等培养具备学科理论和知识、熟练运用所学理论、方法和工具，对农村发展问题进行分析和应对的高层次农村发展专门人才。本领域培养方向包括农村经济发展、农村社会发展、农村发展规划等。要求热爱祖国、拥护党的路线、方针和政策；具有良好的职业道德和敬业精神，具备为我国农村发展事业服务的社会责任感；熟悉农业农村现实与发展趋势，掌握相关理论、方法和工具，具有独立承担农村发展领域实际工作的能力；基本掌握一门外国语，能够阅读本领域的外文资料。

上海交通大学农业与生物学院自2002年开始招收农村与区域发展专业领域在职研究生，自2012年开始招收本专业领域全日制专业硕士，二十年来为地方农业农村管理部门、相关行政机关、企事业单位培养了一批具有丰富专业知识与解决实际问题能力的高层次、复合型人才。按照学院“以基础研究为主，向应用基础和应用研究拓展”的“顶天立地”科研定位及“宽厚型、复合型、开放型、创新型”的人才培养目标，依托科技部和教育部共建国家级新农村发展研究院，围绕都市现代农业、乡村振兴战略、农业农村发展规划等若干特色领域，组建了一只具有丰富经验、充满朝气、热枕于事业的专职科研教学的队伍，大部分教师具有海外留学背景或博士学历，为本领域研究生培养工作开展创造扎实基础。

The study of rural development takes the sustainable development of rural economy and society as the research object, using multi-desciplinary theories and methods such as in economics, management, sociology, and development planning, exploring the process, mode, mechanism, problem and policy of rural development. Marked by the strategy of rural revitalization, the national and local governments have paid more and more attention to the development of agricultural and rural areas, and the research in related fields has gradually become a hot spot, so that the training of talent team should be attached great importance. In 1999, the academic degree committee of the State Council approved the establishment of master's degree in agricultural extension, and rural and regional development is one of the fields. In 2014, the 31st meeting of the academic degree committee of the State Council officially renamed the master of agricultural extension as the master of agriculture, and the field of rural and regional development as the rural development.

The master of agriculture in rural development is a professional degree related to the qualifications in this field. It aims to cultivate high-level rural development professionals mainly for government departments, institutions, scientific research institutions and social organizations, who have acquired discipline theories and knowledge, proficient use of theories, methods and tools, as well as the ability to analyze and respond to rural development issues. The training fields in this field include rural economic development, rural social development, rural development planning, etc. Students are required to love the motherland and support the party's basic line, principles and policies; have good professional ethics and professionalism, and have a sense of social responsibility to serve the cause of rural development in China; be familiar with the reality and development trend of agricultural and rural areas, master relevant theories, methods and tools, and have the ability to independently undertake the actual work in the field of rural development; basically master a foreign language and be able to read materials in the language in this field.

In 2002, the School of Agriculture and Biology of Shanghai Jiao Tong University started to recruit part-time postgraduates in the field of rural and regional development, and since 2012, it has recruited full-time professional masters in this field. In recent 20 years, it has cultivated a number of high-level and compound talents with professional knowledge and ability to solve practical problems for local agricultural and rural management departments, relevant administrative organisations, enterprises and institutions. According to the scientific research orientation of "focusing on basic research, expanding to applied foundation and applied research" and the talent cultivation goal of "broad, compound, open and innovative", relying on the Ministry of Science and Technology and the Ministry of Education, the school has jointly built a national institute of new rural development, focusing on modern urban agriculture, rural revitalization strategy, agricultural and rural development planning, etc. Accordingly, a full-time scientific research and teaching team mostly educated overseas or with a doctoral degree, together with rich experience, full of vigor and passion has been set up to create a solid foundation for the development of postgraduate training in this field.

三、培养目标 Program Objective

1.专业基础

既需要了解一般的农业经济学、农村社会、管理等学科的基础理论，也应该了解农业技术推广、农业技术传播等相关学科的理论和实践知识，具有较宽广的知识面；掌握一门外语，能够比较熟练地阅读本领域的外文资料。

2.专业技能

应系统掌握农村与区域发展领域的专业知识，包括现代农业创新与乡村振兴战略、发展理论与实践、农村公共政策分析、农村组织与治理、发展项目管理与评估、农村发展规划、社会调查和研究方法、农业推广理论与实践、信息技术应用、现代农业经济与管理、发展项目管理与评估、农业生态与环境治理等内容，培养从事农村发展工作的基本能力。

3.综合素养

学术道德。应恪守学术道德规范与研究伦理，充分尊重他人的学术成果，在严格遵守知识产权的基础上借鉴和创新。

专业素质。应具备良好的科学态度与团队协作精神，系统掌握农村发展领域涉及的各种基本理论知识与研究方法，具备发现问题、分析问题、解决问题的能力。增强创新创业能力。

职业精神。应树立正确的职业态度，立志于农村发展的研究与实践，自觉履行职业责任，掌握全面的职业技能，爱岗敬业，坚守优良的职业作风。

1. Professional fundamentals

It is necessary to for students to understand not only the basic theories of general agricultural economics, rural society, management and other disciplines, but also the theoretical and practical knowledge of agricultural technology extension, agricultural technology communication and other related disciplines, with a wide range of knowledge; to master a foreign language, and be able to read foreign materials in this field.

2. Professional skills

Students are expected to systematically master the professional knowledge in the field of rural and regional development, including modern agricultural innovation and rural revitalization strategy, development theory and practice, rural public policy analysis, rural organization and governance, development project management and evaluation, rural development planning, social investigation and research methods, agricultural extension theory and practice, information technology application, modern agricultural economy and management, development project management and evaluation, agricultural ecology and environmental governance, etc., in order to gain the basic ability to engage in rural development.

3.Overall quality

Academic ethics. We require our students to abide by academic and research ethics, fully respect others' academic achievements, and learn from and innovate on the basis of strictly abiding by intellectual property rights.

Professional quality. Students are trained to have a good scientific attitude and team spirit, systematically grasp various basic theoretical knowledge and research methods involved in the field of rural development, and have the ability to find, analyze and solve problems, as well as the ability of innovation and entrepreneurship.

Professionalism. Students are educated to set up the correct professional attitude aiming at the research and practice of rural development, conscientiously, fulfill the professional responsibility, master the comprehensive professional skills, love the post and work hard, and stick to the excellent professional style.

四、培养方式及学习年限 Training Mode and Study Duration

1.培养方式

本项目采用全日制学习模式。研究生培养采取课程学习、实践训练、论文研究相结合的培养方式。采取校内课程学习和校外实践研究相结合的学习方式，课程学习实行学分制。硕士研究生的培养实行双导师制。新生入学后两周内经师生互选确定导师，并指导硕士研究生制定切实可行的培养计划。在培养期间完成培养方案规定的课程学习、科学研究、专业实践和论文撰写等工作。

2.学习年限

一般为二年半。最短学习年限一般不少于2年，最长可延长1学年。

1.Training mode

This is a full-time program, with a combination of course learning, practical training and thesis research. The credit system is adopted in the course learning, which is a combination of in school course learning and out of school practice research. The cultivation of students adopts the double tutor system. Within two weeks after admission, teachers and students will finalize the selection and determine the tutors, and guide the students to draft practical training plans. During the training period, students shall complete the course learning, scientific research, professional practice and thesis writing as specified in the training plan.

2.Study duration

Generally two and a half years, with the shortest of no less than 2 years in general, and up to one year can be extended.

五、课程学习要求 Course Requirement

课程类别 Course Type	学分要求 Min Credits	GPA 学分要求 Min GPA Credit	备注 Note
公共基础课 General Fundamental Courses	6	6	
专业基础课 Program Core Courses	11	11	
专业前沿课 Program Frontier Courses	0		
专业选修课 Program Elective Courses	0		

六、培养过程要求 Training Requirement

1.开题报告

硕士生学位论文开题在第二学年第一学期结束前完成。基本完成培养计划中规定的课程学习并成绩合格，GPA满足培养方案要求。专家小组至少由3名相关学科具有硕士研究生指导资格的专家对开题报告进行论证。首次学位论文开题未通过的，可在下一学期再次申请开题；两次论文开题均未通过的，由开题报告专家组作出应予退学处理建议。

2.中期检查

完成培养计划中规定的全部课程学习并成绩合格；GPA不低于2.7；学位论文开题已通过。中期检查应在学位论文送审前3个月进行，主要内容包括：研究生课程学习完成情况、论文工作进展情况、个人总结、导师评价以及考核小组面试评审等。专家小组由3名以上相关学科具有硕士研究生指导资格的专家组成的专家组对学生报告进行答辩评审。中期检查的结果按“通过”或“不通过”记载。中期检查不通过的硕士研究生，应给予警告，并要求其给出改进措施，上报给所在院系。经整改可于下一学期再次进行中期检查，2次中期检查不通过者，由专家组作出应予退学处理建议。

3.专业实践

结合本专业领域特色，利用校企优势互补，共建校内、校外农村发展实践基地；建设、配备一支数量稳定、实践经验丰富的实践教学师资队伍，保障专业实践按计划、规范化开展。

专业学位硕士研究生的培养实行校内外双导师共同指导的方式，以校内导师指导为主，校外导师参与实践过程、项目研究和论文等多个环节的指导工作。

专业学位硕士研究生的课程教学要加强案例教学、实践（现场）教学、模拟训练等教学方法的运用，突出专业学位硕士研究生实践研究和技术创新能力的培养，强化对专业学位硕士研究生运用所学基本知识和技能解决实际问题的能力和水平的考核。

专硕在学期间，必须保证不少于半年的专业实践教学，获取专业实践课程的学分。

1. Opening report

The opening report of master's degree thesis shall be completed before the end of the first semester of the second academic year. Students shall basically complete the courses specified in the training plan and pass the tests, with the GPA fulfilling the requirements of the training program. At least 3 experts in relevant disciplines shall serve as the panel members for the opening report.

If the first opening report of the degree thesis fails, students can apply for another in the next semester; if it fails the second time, the expert panel shall make suggestions on the withdrawal.

2. Progress inspection

Students shall complete all courses specified in the training plan and pass the tests, with GPA no less than 2.7 and the thesis succeeded in the opening report. The progress inspection should be carried out three months before the thesis is submitted for examination. The main contents include: the completion of postgraduate courses, the progress of thesis, personal summary, tutor evaluation, oral test and review of the assessment panel, etc. The panel should be composed of more than 3 experts in relevant disciplines to review the student's report. The results of the inspection shall be recorded as "pass" or "fail". Students who fail to the progress inspection shall be given a warning and required to give improvement measures and report to the department. After rectification, the progress inspection can be carried out again in the next semester. If the two inspections fail, the expert panel shall make suggestions on the withdrawal.

七、学术成果要求 Requirement on Academic Achievements

硕士研究生应从事农村发展专业领域培养目标相应的理论与实践研究，达到国内一流学科硕士学术水平，鼓励创新性成果。毕业要求遵照上海交通大学和农业与生物学院的规定。答辩之前，学位论文需通过同行评审。

Master student should be engaged in the theoretical and practical research relevant to the training objectives of rural development, achieve the first-class master academic level in China. Innovative achievements be encouraged. Graduation requirements are in accordance with the regulations of Shanghai Jiao Tong University and the School of Agriculture and Biology. Before oral defense, the dissertation must pass the peer review.

八、学位论文 Thesis/dissertation work

1.论文选题o:p

论文选题应来源于农村发展实践中的应用课题或现实问题，要有明确的应用价值，论文要有一定的先进性和工作量，能体现作者综合运用科学理论、方法和技术手段解决问题的能力。o:pspan

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2.论文形式

学位论文应反映研究生综合运用知识技能解决实际问题的能力和水平，可将研究论文、设计规划、调研报告、案例分析等作为主要内容，以论文形式表现。

3.论文评审

1.Topic selection

The thesis should be selected from the practical issues or problems in trural development, and should have clear pracitical value. The thesis should be advanced in some way and show certian workload, which can reflect the author's ability to solve problems comprehensively by using scientific theories, methods and techniques.

2.Thesis form

The thesis should reflect the ability and competence of the students in comprehensively usig knowledge and skills to solve practical problems. It can be in the form of a research paper, a design plan, a research report, a case analysis, etc.

3.Review of theis

The selection of topics, research methods, workload and quality of research should be examined in the qualification evaluation. The evaluation of theis should focus on the author's ability to solve practical problems in the process of rural development by comprehensively using rural development theories, methods and technical means. The evaluation of thesis is generally conducted one and a half months before the oral defense. The thesis distribution, collection and feedback of evaluation opinions and results shall be in the charge of the secretary of oral defense designated by the discipline, and the author of the thesis shall not participate.

九、课程设置 Courses

详见下页 Please refer to the next page.

撰稿人签字：　　日 期：

校稿人签字：　　日 期：

审核人签字：　　日 期：

主管院长签字：　　院系公章　　日期：

课程类别 Category	课程代码 Course Code	课程名称 Course Name		学分 Credit	授课语言 Language	开课学期 Semester	是否必修 Compusory	可以计算GPA	必须计算GPA	备注 Note	多选组 Course Group
		中文Chinese	English 英文								
公共基础课 General Fundamental Courses	FL6001	学术英语	English for Academic Purposes	2	英文	秋季	是	是	是		
	MARX6001	新时代中国特色社会主义理论与实践	Theory and Practice of Socialism with Chinese Characteristics in the New Era	2	中文	春季	是	是	是		
	MARX6003	自然辩证法概论	Introduction to Dialectics of Nature	1	中文	春季	是	是	是		
	GE6001	学术写作、规范与伦理	Scientific Writing, Integrity and Ethics	1	中英并行开班	春秋季	是	是	是		
专业基础课 Program Core Courses	STAT6001	基础数理统计	Fundamental Mathematical Statistics	3	中文	春秋季	是	是	是		最少1门、最低3分
	STAT6002	生物数学（I）	Biology Mathematics I	3	中文	春秋季	是	是	是		最少1门、最低3分
	AGRI6027	现代农业创新与乡村振兴战略	Modern Agricultural Innovation and Rural Revitalization Strategy	2	中文	秋季	是	是	是		
	AGRI6028	发展理论与实践	Theory and Practice of Development	2	中文	秋季	是	是	是		
	AGRI6029	农村发展规划	Rural Development Planning	2	中文	春季	是	是	是		
	AGRI6030	社会调查和研究方法	Social Survey & Research Methods	2	中文	春季	是	是	是		
	GE8001	专业实践	Professional Practice	1	中文	春秋季	是	否	否		
专业前沿课 Program Frontier Courses	AGRI6025	农业推广理论与实践	Theory and Practice of Agricultural Popularization	2	中文	秋季	否	是	否		
	GE6012	学术报告与研讨会	Academic Seminars	2	中文	春季	是	否	否		
专业选修课 Program Elective Courses	ECOL8005	农业生态学	Agticultural Ecology	2	中文	秋季	否	是	否		
	AGRI8004	现代农业经济与管理	Modern Agricultural Economics and Management	2	中文	春季	否	是	否		
	AGRI8007	发展项目管理与评估	Management and Evaluation of Development Project	2	中文	春季	否	是	否		
	ECOL6007	信息技术在农业环境中的应用	Application of Information Technology in Agriculture	2	中文	春季	否	是	否		

农艺与种业(095131)全日制硕士培养方案（中澳葡萄与葡萄酒联合培养专项）（专硕）

Agronomy and Breeding

一、基本信息 Basic Information

院系名称 School	(150)农业与生物学院 School of Agriculture & Biology			适用年级 Grade	2024
适用专业 Major	农艺与种业(095131) Agronomy and Breeding				
项目类型 Program Type	全日制硕士				
最低学分 Min Credit	30	最低GPA学分 Min GPA Credit	18	最低GPA Min GPA	2.7

二、学科简介 Introduction

农艺与种业全日制专业硕士-中澳葡萄与葡萄酒联合培养专项为上海交通大学农业与生物学院与澳大利亚阿德莱德大学农业、食品与葡萄酒学院共同建立的联合培养项目。农艺与种业学科主要依托园艺学科建设。上海交通大学园艺学科始建于1980年，1999年开始培养硕士和博士研究生，2007年建立园艺学博士后流动站，2010年获一级学科博士学位授予权。

园艺学依托上海交通大学强大的理工学科优势，以现代都市园艺基础和应用研究为特色和重点，形成园艺作物发育生物学、园艺作物品质与代谢工程、园艺作物种质创新、设施园艺与高效栽培四个研究方向，在基础生物学、作物遗传育种、资源评价与利用、作物发育、品质形成、抗性机理、植物激素和代谢调控等方面开展研究和探索，在园艺植物新品种培育、高效生态栽培技术开发等领域形成了强有力的研究团队。学科师资力量雄厚，现有专任教师57人，其中讲席教授2人，特聘教授2人，教授18人，副教授30人，讲师9人， 99%教师具有博士学位，90%具有海外经历。学科拥有国家千人1人、长江学者1人、国家杰出青年基金获得者1人，青年千人1人，教育部新世纪人才3人、 上海浦江学者9人、行业岗位科学家、上海市领军人才等多人，形成了基础-应用-推广紧密结合的人才队伍。

上海交通大学农业与生物学院拥有农业部都市农业（南方）重点实验室、浦江绿谷国家农业创新集成与示范基地、教育部农林实践基地等省部级研究平台。形成了“学校分析测试中心”、“学院分析测试平台”和“园艺学科研平台”三位一体的科研支撑体系，科研条件建设达到国际一流水平，为研究生培养和科技创新提供了保障。

本专项计划旨在结合上海交通大学在葡萄资源与育种、葡萄栽培生产、葡萄抗逆分子机理、葡萄加工和综合利用等相关领域及澳大利亚阿德莱德大学在葡萄园管理、葡萄酒酿造工艺、葡萄酒微生物、葡萄酒感官科学等相关领域国际领先的优势，培养具有国际视野的葡萄与葡萄酒学科高级专业人才。

Agronomy and Seed Industry discipline (SJTU-Adelaide in Viticulture and Enology) was constructed by School of Agriculture and Biology (Shanghai Jiao Tong University, SJTU) and Faculty of Agriculture, Food and wine (University of Adelaide, UA). Agronomy and Seed Industry disciplines mainly rely on the construction of horticultural disciplines. Horticulture is one of the key disciplines of Shanghai Jiao Tong University (SJTU) and founded in 1980. It starts to confer the master and doctor degrees in 1999 and accept postdoctor in 2007.

Taking the advantages of strong science and engineering disciplines in SJTU, horticulture characters with basic and applied research in modern urban gardening, and develops four research fields, including horticultural crop developmental biology, horticultural crop quality and metabolic engineering, horticultural crop germplasm innovation, facility horticulture and efficient cultivation. Horticulture science focuses on genetics and breeding, resource evaluation and utilization, quality formation, plant hormone and metabolic regulation, plant growth regulation and biotic/abiotic stress mechanism of horticultural crops. Strong research teams specialize in genetics and breeding of horticultural crops, ecological cultivation and development. There are 57 staffs in the horticultural field, including 2 chair Professors, 2 Distinguished Professors, 18 Professors, 30 Associate Professors and 9 Assistant Professors. 99% teachers with doctoral degree, and 90% teachers with at least one year’ s overseas research experience. There are 1 Cheung Kong Scholar, 1 Distinguished Young Scholar, 2 winners of New Century Excellent Talents support program, 2 outstanding academic leader in Shanghai, 1 gainers of Tang Cornell-China Scholars Program and 2 post experts of National Modern Agriculture Industry Technology System (Viticulture and Enology)We closely collaborated with globally renowned universities and agricultural colleges, such as University of California-Davis, Cornell University, University of Rogers, Wageningen University, University of Nottingham and Chiba University of Japan. The discipline has the Urban Agricultural (South China) Key Laboratory of Ministry of Agriculture, Pujiang Green Valley National Agricultural Innovation Integration and Demonstration Base, and Agricultural and Forestry Practice Base of Ministry of Education. Three research platforms, including Instrumental Analysis Center of SJTU, School of Agriculture and Biology (SAB) and Department of Plant Sciences, could support the top level research in the world.

This dual Master degrees program (Viticulture and Enology) between University of Adelaide and SJTU has been established in our School in 2018. This program aims to combine the excellent resources from SJTU (Grape germplasm resource and breeding, viticulture, disease resistance mechanisms) and Adelaide (Enology, wine microbiology and sensory science), to train the talents with international vision for future development of grape and wine industry.

三、培养目标 Program Objective

1. 基本素质

学术道德。应恪守学术道德规范与研究伦理，遵守国家有关法律和规章制度，充分尊重他人的学术成果，不得捏造、篡改、拼凑试验数据或结果，在严格遵守知识产权的基础上借鉴和创新。

学术素养。应热爱葡萄与葡萄酒专业，对相关科学问题具有浓厚的兴趣。具备较为宽广坚实的学科基础知识和实践技能，把握国内外现代葡萄与葡萄酒科学发展动态，具备创新思维和团队协作精神。能逐步成长为未来葡萄与葡萄酒产业所需要的具有国际化视野的高级专业人才。

font-size: 14px;">2. 基本能力

获取知识的能力。具有通过多种手段或途经获取葡萄与葡萄酒相关研究前沿动态的能力，能够充分利用文献资料、网络、合作交流、国内外学术会议和园艺生产实践等多种方法途径获取专业知识。

1. Basic quality

Academic ethics. We require our students to abide by academic and research ethics, fully respect others' academic achievements, and learn from and innovate on the basis of strictly abiding by intellectual property rights.

Professional quality. Students are trained to have a good scientific attitude and team spirit, systematically grasp various basic theoretical knowledge and research methods involved in the field of Viticulture and Enology, and have the ability to find, analyze and solve problems, as well as the ability of innovation and entrepreneurship.

2. Basic ability

Obtain basic knowledge. Students are expected to understand current status of Viticulture and Enology, and to obtain a wide range of professional knowledge through various approaches, including reference, internet, collaboration, symposium and practice.

Academic identification. Students are expected to have the ability of academic identification to find the key issues of research projects in Viticulture and Enology.

Scientific research. Students are expected to systematically master the professional knowledge in the field of Viticulture and Enology, including genetics and breeding, cultivation, postharvest, and enology and to propose valuable scientific project through independent reading, designing and conducting experiments until writing articles.

Practice. Students are expected to have strong practice ability in Viticulture and Enology, and to apply theory to production and management through collaboration. To understand the needs of professional theories and technologies in production, students need to participate production and research projects.

Academic exchange. To fulfill academic exchange, students are expected to grasp at least one foreigen language for reading, writing and oral skills in international conferences.

四、培养方式及学习年限 Training Mode and Study Duration

1. 学习年限：一般为两年半。

margin-left:0cm;mso-para-margin-top:.5gd;mso-para-margin-right:0cm;mso-para-margin-bottom: .5gd;mso-para-margin-left:0cm;text-indent:24.0pt;mso-char-indent-count: 2.0″>2. 学习方式：采用全日制学习方式。由课程学习、实践操作、产业实习、学位论文研究四个主要环节组成。

The period is generally 2.5 years’ full-time study, which consists of four main parts: courses, practical training, enterprise training and dissertation research. The students will implement the course study and practical training in SJTU for first year, and do their third semester course study and training in UA. The students will be back to SJTU in the fourth semester to finish their dissertation research.

五、课程学习要求 Course Requirement

课程类别 Course Type	学分要求 Min Credits	GPA 学分要求 Min GPA Credit	备注 Note
公共基础课 General Fundamental Courses	6	6	
专业基础课 Program Core Courses	12		
专业前沿课 Program Frontier Courses	0		
专业选修课 Program Elective Courses	0		

六、培养过程要求 Training Requirement

1. 硕士开题报告

硕士生学位论文开题在第一学年的第二个学期结束前完成前完成。

基本完成培养计划中规定的课程学习并成绩合格，GPA满足培养方案要求。

专家小组至少由3名相关学科具有硕士研究生指导资格的专家对开题报告进行论证。

style="font-size:12.0pt;mso-bidi-font-size:10.0pt;mso-fareast-font-family:楷体_GB2312">
首次学位论文开题未通过的，可在下一学期再次申请开题；两次论文开题均未通过的，由开题报告专家组作出应予退学处理建议。

2. 硕士生中期检查

完成培养计划中规定的全部课程学习并成绩合格；GPA不低于2.7；学位论文开题已通过。

中期检查应在学位论文送审前3个月进行，主要内容包括：研究生课程学习完成情况、论文工作进展情况、个人总结、导师评价以及考核小组面试评审等。

专家小组由3名以上相关学科具有硕士研究生指导资格的专家组成的专家组对学生报告进行答辩评审。中期检查的结果按“通过”或“不通过”记载。

1. Thesis proposal of master student

The master degree thesis proposal should generally be carried out before the end of the first semester of the second academic year. The students shall complete all the courses as specified in the training plan and pass the exams, the GPA should meet the requirement of program curriculum. The committee of at least three master supervised experts in the related discipline should evaluate the thesis proposal reports. The students who failed to pass the evaluation at the first time could apply for a second chance. The committee should give a suggestion of drop out of schooling to whom failed at the re-assessment.

2. Mid-term

assessment of master student

The students shall complete all the courses as specified in the training plan and pass the exams, the GPA should be no less than 2.7. And also the students have passed thesis proposal assessment.

Mid-term assessment should be completed at least 3-month in advance of thesis review. The assessment shall include a review of course completion, the progress of the thesis, personal progress summary, evaluation by the supervisor, and an oral presentation to the assessment committee.

A Mid-term assessment committee of at least three master supervised experts should organize a defense assessment of student's mid-term report. The results of the assessment shall be marked as passed/failed.

The master student whose mid-term assessment failed to pass shall be warned, and be requested to submit a corrective action report. Those who have improved their mid-term reports can participate in a re-assessment in the next semester. The committee should give a suggestion of drop out of schooling to whom failed

七、学术成果要求 Requirement on Academic Achievements

硕士研究生应从事园艺学科培养目标相应的科学研究，达到国内一流学科硕士学术水平。鼓励取得创新性成果和技术发明等，毕业要求遵照上海交通大学和农业与生物学院的规定。答辩之前，学位论文需通过同行评审。

Master student should achieve the first-class discipline master academic level in China, and academic achievements should be in accordance with the graduation requirements of Shanghai Jiao Tong University and the School of Agriculture and Biology. Master student should be engaged in scientific research corresponding to the training objectives of horticulture discipline, and achieve certain innovative results. Master student are encouraged to apply for patent. Before applying for defense, dissertation must pass peer review.

八、学位论文 Thesis/dissertation work

1.选题要求o:p

选题应来源于产业的实际需求,是某一区域葡萄和葡萄酒产业或科技型企业发展中急需解决的生产、技术、流通或管理等领域的具体命题。2.学位论文形式和规范要求o:p论文形式可以是市场产业调研报告、应用技术试验研究葡萄和葡萄酒产业规划设计葡萄和葡萄酒产品开发、产业案例分析、葡萄和葡萄酒应用基础研究等,应避免资料汇总、文献综述等形式。o:p

o:p学位论文写作要求条理清晰,内容具体,结构合理,层次分明,文理通顺,数据真实,统计和分析科学,版式符合国家或学位授予单位的学位论文规范。3.学位论文水平要求o:p应提交学位论文并完成答辩。具体要求如下:o:p1

span style="font-size: 14px;"学位论文必须根据实践工作与研究内容进行论文写作,要有一定的创新性、先进性、应用性和工作量。具体形式可以是实践报告以及本专业领域相关问题的研究。o:p2论文能体现作者综合运用葡萄和葡萄酒科学理论、方法和技术手段解决生产实际问题的能力。o:p

o:p3论文应以中文撰写,正文一般不少于span

1.Requiremnent for dissertation topic

The topic of master dissertation should be directly from the needs of grape and wine industry or related enterprises, such as the scientific or practical problems of production, technology, logistic or management issues.

2.Format and standardization requirements

The dissertation shall comply with the basic format of the dissertation stipulated by the nation and the conferring authority. It could be the following formats, such as, marketing report, applied research, industry design, product development, Viticultural and Enological case analysis, basic research for Viticulture and Enology, and should be avoid the summary of conference and literature review.

2.0″>

3. Quality requirements

The master degree thesis in viticulture and enology should have a certain academic level, theoretical significance, or practical value. It includes the following aspects:

(1) The dissertation should be based on practical work and research with a certain innovation, advancement, practical value and workload..

(2) The dissertation should be scientific and integrative to solve practical Viticultural and Enological issues.

(3) The dissertation should be writing in Chinese and not less than 15000 words in the main text.

4.Dissertation Review for (Academic) Master’ s Degree Application

Dissertation review shall be conducted one and a half months before the dissertation defense. The Dissertation secretary, designated by the student’ s School, shall be responsible for the delivery of dissertation as well as collection and feedback of review comments and results, while the author of the dissertation shall not participate in the process.

5.sertation Defense of (Professional) Master student

After the

九、课程设置 Courses

详见下页 Please refer to the next page.

撰稿人签字： 日 期：

校稿人签字： 日 期：

审核人签字： 日 期：

主管院长签字：　　院系公章　　日期：

课程类别 Category	课程代码 Course Code	课程名称 Course Name		学分 Credit	授课语言 Language	开课学期 Semester	是否必修 Compusory	可以计算GPA	必须计算GPA	备注 Note	多选组 Course Group
		中文Chinese	English 英文								
任意选修课 Elective Courses	ECON8008	国际经济学	International Economics	3	中文	秋季	否	是	否		
公共基础课 General Fundamental Courses	FL6001	学术英语	English for Academic Purposes	2	英文	秋季	是	是	是		
	MARX6001	新时代中国特色社会主义理论与实践	Theory and Practice of Socialism with Chinese Characteristics in the New Era	2	中文	春季	是	是	是		
	MARX6003	自然辩证法概论	Introduction to Dialectics of Nature	1	中文	春季	是	是	是		
	GE6001	学术写作、规范与伦理	Scientific Writing, Integrity and Ethics	1	中英并行开班	春秋季	是	是	是		
专业基础课 Program Core Courses	STAT6001	基础数理统计	Fundamental Mathematical Statistics	3	中文	春秋季	是	是	是		最少1门、最低3分
	STAT6002	生物数学（I）	Biology Mathematics I	3	中文	春秋季	是	是	是		最少1门、最低3分
	AGRI6007	葡萄与葡萄酒概论	Introduction to Grape and Wine	2	英文	秋季	是	是	否		
	AGRI6010	葡萄酒化学与工艺	Wine Chemistry and Enology	2	中文	秋季	是	是	否		
	AGRI6027	现代农业创新与乡村振兴战略	Modern Agricultural Innovation and Rural Revitalization Strategy	2	中文	秋季	是	是	否		
	GE6003	实验室安全教育	Laboratory Safety Education	0.5	中文	秋季	是	否	否		
	HORT6007	葡萄酒发酵工艺	Fermentation Technology	3	英文	秋季	是	是	否		
	HORT6008	感官科学	Sensory Studies	3	英文	秋季	是	是	否		
	HORT6010	葡萄酒酿造学	Introductory Winemaking	3	英文	秋季	是	是	否		
	HORT6013	葡萄栽培科学A	Viticultural Science A	3	英文	秋季	是	是	否		
	AGRI6009	葡萄酒化学	Wine Chemistry	2	英文	春季	是	是	否		
	GE8001	专业实践	Professional Practice	1	中文	春秋季	是	否	否		
专业前沿课 Program Frontier Courses	AGRI8001	园艺科学进展	Advance in Horticulture	2	中文	秋季	否	是	否		
	GE6012	学术报告与研讨会	Academic Seminars	2	中文	春季	是	否	否		
专业选修课 Program Elective Courses	AGRI6011	园艺产品采后生物学	Postharvest Biology of Horticultural Products	2	中文	秋季	否	是	否		
	AGRI6025	农业推广理论与实践	Theory and Practice of Agricultural Popularization	2	中文	秋季	否	是	否		
	FOST6002	食品感官评价与风味化学	Food Sensory Evaluation and Flavor Chemistry	2	英文	秋季	否	是	否		
	PVET8007	现代仪器分析技术	Modern Instrument Analysis Method	2	中文	春季	否	是	否		

农艺与种业(095131)全日制硕士培养方案（崇明专项）

Agronomy and Breeding

一、基本信息 Basic Information

院系名称 School	(150)农业与生物学院 School of Agriculture & Biology			适用年级 Grade	2024
适用专业 Major	农艺与种业(095131) Agronomy and Breeding				
项目类型 Program Type	全日制硕士				
最低学分 Min Credit	30	最低GPA学分 Min GPA Credit	21	最低GPA Min GPA	2.7

二、学科简介 Introduction

农艺与种业全日制专业硕士-中以双硕士专项为上海交通大学与以色列耶路撒冷希伯来大学基于战略伙伴关系，共建上海交通大学国际农业与生态学院，由上海交通大学农业与生物学院与罗伯特·希尔顿·史密斯农业、食品和环境学院共同设立的联合培养双硕士项目。农艺与种业专业主要依托园艺学科建设。上海交通大学园艺学科始建于1980年，1999年开始培养硕士和博士研究生，2007年建立园艺学博士后流动站，2010年获一级学科博士学位授予权。园艺学依托上海交通大学强大的理工学科优势，以现代都市园艺基础和应用研究为特色和重点，形成园艺作物发育生物学、园艺作物品质与代谢工程、园艺作物种质创新、设施园艺与高效栽培四个研究方向，在基础生物学、作物遗传育种、资源评价与利用、作物发育、品质形成、抗性机理、植物激素和代谢调控等方面开展研究和探索，在园艺植物新品种培育、高效生态栽培技术开发等领域形成了强有力的研究团队。学科师资力量雄厚，现有专任教师57人，其中讲席教授2人，特聘教授2人，教授18人，副教授30人，讲师9人， 99%教师具有博士学位，90%具有海外经历。学科拥有国家千人1人、长江学者1人、国家杰出青年基金获得者1人，青年千人1人，教育部新世纪人才3人、 上海浦江学者9人、行业岗位科学家、上海市领军人才等多人，形成了基础-应用-推广紧密结合的人才队伍。上海交通大学农业与生物学院拥有农业部都市农业（南方）重点实验室、浦江绿谷国家农业创新集成与示范基地、教育部农林实践基地等省部级研究平台。形成了“学校分析测试中心”、“学院分析测试平台”和“园艺学科研平台”三位一体的科研支撑体系，科研条件建设达到国际一流水平，为研究生培养和科技创新提供了保障。

本专项计划旨在结合上海交通大学在作物种质资源评价与利用、栽培与生产、抗逆及抗病分子机理、种质创新与培育等相关领域及以色列耶路撒冷希伯来大学罗伯特·希尔顿·史密斯农业、食品和环境学院在技术密集型高科技农业、植物基因组学研究、半干旱气候生物技术研究、作物抗病力升级和食品风味和采后保鲜等相关领域国际领先的优势，培养具有国际视野的农业与种质创新高级专业人才。

The full-time master's degree in Agronomy and Seed Industry - China-Israeli Dual Master's Program is a joint dual master's program between the International College of Agriculture and Ecology at Shanghai Jiao Tong University and Robert Hilton Smith College of Agriculture, Food and Environment at Hebrew University of Jerusalem, Israel, based on their strategic partnership.

Agronomy and Seed Industry disciplines mainly rely on the construction of horticultural disciplines. Horticulture is one of the key disciplines of Shanghai Jiao Tong University (SJTU) and founded in 1980. It starts to confer the master and doctor degrees in 1999 and accept postdoctor in 2007. Taking the advantages of strong science and engineering disciplines in SJTU, horticulture characters with basic and applied research in modern urban gardening, and develops four research fields, including horticultural crop developmental biology, horticultural crop quality and metabolic engineering, horticultural crop germplasm innovation, facility horticulture and efficient cultivation. Horticulture science focuses on genetics and breeding, resource evaluation and utilization, quality formation, plant hormone and metabolic regulation, plant growth regulation and biotic/abiotic stress mechanism of horticultural crops. Strong research teams specialize in genetics and breeding of horticultural crops, ecological cultivation and development. There are 57 staffs in the horticultural field, including 2 chair Professors, 2 Distinguished Professors, 18 Professors, 30 Associate Professors and 9 Assistant Professors. 99% teachers with doctoral degree, and 90% teachers with at least one yearne yearuding 2 chair Professors, 2 Distinguished Profeng Scholar, 1 Distinguished Young Scholar, 2 winners of New Century Excellent Talents support program, 2 outstanding academic leader in Shanghai, 1 gainers of Tang Cornell-China Scholars Program and 2 post experts of National Modern Agriculture Industry Technology System (Viticulture and Enology).We closely collaborated with globally renowned universities and agricultural colleges, such as University of California-Davis, Cornell University, University of Rogers, Wageningen University, University of Nottingham and Chiba University of Japan. The discipline has the Urban Agricultural (South China) Key Laboratory of Ministry of Agriculture, Pujiang Green Valley National Agricultural Innovation Integration and Demonstration Base, and Agricultural and Forestry Practice Base of Ministry of Education. Three research platforms, including Instrumental Analysis Center of SJTU, School of Agriculture and Biology (SAB) and Department of Plant Sciences, could support the top level research in the world.

This program aims to integrate the expertise of Shanghai Jiao Tong University in species evaluation and utilization, cultivation and production, resistance and disease molecular mechanisms, germplasm innovation and cultivation with the internationally renowned expertise of the Robert H. Smith Faculty of Agriculture, Food and Environment at the Hebrew University of Jerusalem in technology-intensive high-tech agriculture, plant genomics research, semi-arid climate biotechnology research, crop disease resistance enhancement, and food flavor and post-harvest preservation. The objective is to train highly qualified senior professionals in agriculture and germplasm innovation with a global perspective.

三、培养目标 Program Objective

1. 基本素质

学术道德。应恪守学术道德规范与研究伦理，遵守国家有关法律和规章制度，充分尊重他人的学术成果，不得捏造、篡改、拼凑试验数据或结果，在严格遵守知识产权的基础上借鉴和创新。

学术素养。应热爱农艺与种业专业，对相关科学问题具有浓厚的兴趣。具备较为宽广坚实的学科基础知识和实践技能，把握国内外现代农业和育种科学发展动态，具备创新思维和团队协作精神。能逐步成长为未来农业和种业所需要的具有国际化视野的高级专业人才。

2. 基本能力

获取知识的能力。具有通过多种手段或途经获取农业和种业相关研究前沿动态的能力，能够充分利用文献资料、网络、合作交流、国内外学术会议和作物生产实践等多种方法途径获取专业知识。

学术鉴别能力。应具有敏锐的学术鉴别能力，即对现代农业和作物育种已有的研究成果真实性、创新性的鉴别，准确发现研究课题关键点。

科学研究能力。能够从现代农业和作物育种的发展过程中，针对全产业链中的具体环节，提出有价值的研究问题，通过查阅文献，设计实验方案，独立组织实施、分析、总结并撰写论文。通过上述科研活动训练，具备独立承担有关科研项目的能力。

实践能力。应具有较强的实践能力，善于将基本理论和生产与管理相结合，具备良好的协作精神和一定的组织能力。应参与相关的生产与研究工作，了解社会、农业、以及生产实践对专业理论和技术的需求。

Obtain basic knowledge.Students are expected to understand current status of horticultural industry and research, and to obtain a wide range of professional knowledge through various approaches, including reference, internet, collaboration, symposium and practice.

Academic identification. Students are expected to have the ability of academic identification to find the key issues of research projects in horticultural crops.

Scientific research. Students are expected to systematically master the professional knowledge in the field of horticulture, including genetics and breeding, cultivation and postharvest, and to propose valuable scientific project through independent reading, designing and conducting experiments until writing articles.

Practice. Students are expected to have strong practice ability in agronomy and breeding, and to apply theory to production and management through collaboration. To understand the needs of professional theories and technologies in production, students need to participate production and research projects.

Academic exchange. To fulfill academic exchange, students are expected to grasp at least one foreign language for reading, writing and oral skills in international conferences.

四、培养方式及学习年限 Training Mode and Study Duration

学习年限：一般为2.5年，最短学习年限一般不少于2年，最长可延长1学年。

学习方式：采用全日制学习方式。由课程学习、专业实践、学位论文研究三个主要环节组成。

培养方式：采取课程学习和实践相结合的学习方式，第一学年在上海交大完成课程修读及参与实践教学。赴希伯来大学学习的学生，需提前提出申请，希伯来大学将对申请者进行选拔，达到外方注册要求的学生（如雅思成绩达到6分或托福成绩达到80分级以上，以及其他外方的要求），将根据外方安排前往耶路撒冷希伯来大学，进行至少一个学期（不含小学期）的课题研究和实践。学位论文要求同时使用中文和英文两种语言书写。达到双方院校学位授予要求的学生，将获得上海交通大学和希伯来大学分别颁发的学位证书。

Study period: The study duration for a Master's degree normally is 2.5-year. The shortest study period is 2-year. Students who can't complete their program can apply for an extension of study duration, up to 1 year.
Learning mode: full-time study is required. Students should complete training process including course learning, professional practice, scientific research.
Cultivation mode: The training program for a Master's degree includes course learning and practice activities. Students shall complete all credit courses within the first academic year at Shanghai Jiao Tong University. Students should submit a Hebrew University semester registration application in advance. Students who meet foreign student's registration requirements of Hebrew University (such as IELTS score of 6 or TOEFL score of 80 at least, as well as other requirements) will go to Hebrew University of Jerusalem according to the Hebrew University schedule.Students should conduct research and practice activity for at least one semester (excluding summer semester) on the Hebrew University campus. The Master Degree Dissertation is required to be written in both Chinese and English. Students who meet the degree awarding requirements of both universities will achieve certificates from Shanghai Jiao Tong University and Hebrew University respectively.

五、课程学习要求 Course Requirement

课程类别 Course Type	学分要求 Min Credits	GPA 学分要求 Min GPA Credit	备注 Note
公共基础课 General Fundamental Courses	6	6	
专业基础课 Program Core Courses	10.5	9	
专业前沿课 Program Frontier Courses	8	6	
专业选修课 Program Elective Courses	0		

六、培养过程要求 Training Requirement

1. 硕士开题报告
硕士生学位论文开题在第一学年的第二个学期结束前完成前完成。
基本完成培养计划中规定的课程学习并成绩合格，GPA满足培养方案要求。
专家小组至少由3名相关学科具有硕士研究生指导资格的专家对开题报告进行论证。
首次学位论文开题未通过的，可在下一学期再次申请开题；两次论文开题均未通过的，由开题报告专家组作出应予退学处理建议。
2.

font-size: 11pt; font-family: 楷体;">硕士生中期检查

完成培养计划中规定的全部课程学习并成绩合格；GPA不低于2.7；学位论文开题已通过。
中期检查应在学位论文送审前3个月进行，主要内容包括：研究生课程学习完成情况、论文工作进展情况、个人总结、导师评价以及考核小组面试评审等。专家小组由3名以上相关学科具有硕士研究生指导资格的专家组成的专家组对学生报告进行答辩评审。中期检查的结果按“通过”或“不通过”记载。
中期检查不通过的硕士研究生，应给予警告，并要求其给出改进措施，上报给所在院系。经整改可于下一学期再次进行中期检查，2次中期检查不通过者，由专家组作出应予退学处理建议。
3. 专业实践要求
结合农业与种业专业特色，利

1. Thesis proposal of master student
The master degree thesis proposal should generally be carried out before the end of the first semester of the second academic year. The students shall complete all the courses as specified in the training plan and pass the exams, the GPA should meet the requirement of program curriculum. The committee of at least three master supervised experts in the related discipline should evaluate the thesis proposal reports. The students who failed to pass the evaluation at the first time could apply for a second chance. The committee should give a suggestion of drop out of schooling to whom failed at the re-assessment.
2. Mid-term assessment of master student
The students shall complete all the courses as specified in the training plan and pass the exams, the GPA should be no less than 2.7. And also the students have passed thesis proposal assessment.
Mid-term assessment should be completed at least 3-month in advance of thesis review. The assessment shall include a review of course completion, the progress of the thesis, personal progress summary, evaluation by the supervisor, and an oral presentation to the assessment committee.
A Mid-term assessment committee of at least three master supervised experts should organize a defense assessment of student's mid-term report. The results of the assessment shall be marked as passed/failed.
The master student whose mid-term assessment failed to pass shall be warned, and be requested to submit a corrective action report. Those who have improved their mid-term reports can participate in a re-assessment in the next semester. The committee should give a suggestion of drop out of schooling to whom failed at the re-assessment.
3. Requirement for Practice of the Professional Master Degree Programs
Combination with the characteristics of the discipline of Viticulture and Enology, the practice bases inside and outside University should be established by taking complementary advantages of both school and enterprise. A stable, rich-experienced practical teaching team should be developed to ensure that the professional practice can be carried out in a planned and standard way.
The training of the professional master students is encouraged to be co-supervised by two supervisors, one inside and the other outside the University. The internal supervisor takes the major responsibility, while the external supervisor will participate in supervising the practice, project research, thesis, and other works.
The delivering of the professional master degree courses shall enhance the application of diversified teaching methods, such as case study, on-site practice, and training simulations, highlighting the training of practical research and technological innovation abilities, and

七、学术成果要求 Requirement on Academic Achievements

硕士研究生应从事与农艺与种业专业培养目标相应的科学研究和专业实践，达到国内一流学科硕士学术水平。鼓励取得创新性成果和技术发明等，毕业要求遵照上海交通大学和农业与生物学院的规定。答辩之前，学位论文需通过同行评审。

Master student should achieve the first-class discipline master academic level in China, and academic achievements should be in accordance with the graduation requirements of Shanghai Jiao Tong University and the School of Agriculture and Biology. Master student should be engaged in scientific research corresponding to the training objectives of horticulture discipline, and achieve certain innovative results. Master student are encouraged to apply for patent. Before applying for defense, dissertation must pass peer review.

八、学位论文 Thesis/dissertation work

参与了本项目且符合双方院校毕业要求的学生，将获得由两所大学颁发的学位证书。o:p

1.选题要求

选题应来源于农业和种业的实际需求,是某一区域农业和种业科技型企业发展中急需解决的生产、技术、流通或管理等领域的具体命题。o:p

2.学位论文形式和规范要求

论文形式可以是市场产业调研报告、应用技术试验研究、产业规划设计、农产品开发、和农业应用基础研究等,应避免资料汇总、文献综述等形式。o:p

学位论文写作要求条理清晰

span lang="EN-US",内容具体,结构合理,层次分明,文理通顺,数据真实,统计和分析科学,版式符合国家或学位授予单位的学位论文规范。o:p

学位论文要求同时使用中文和英文两种语言书写完成，英文论文将提交给希伯来大学。其中中文论文正文一般不少于1.5万字。

3.学位论文水平要求o:p

应提交学位论文并完成答辩。具体要求如下:o:p

1学位论文必须根据实践工作与研究内容进行论文写作,要有一定的创新性、先进性、应用性和工作量。具体形式可以是实践报告以及本专业领域相关问题的研究。o:p

2论文能体现作者综合运用现代农业科学理论、方法和技术手段解决生产实际问题的能力。

4.硕士论文送审o:p

学位论文评审一般于答辩前一个半月进行，学位论文的派送、评审意见与结果的回收汇总和反馈，由所属学科指定答辩秘书负责，论文作者不得参与。o:p

5.硕士学位论文答辩

通过论文评审并按评审专家意见修改、完善，经导师审核定稿，且达到学院规定的科研成果要求者，向所在学科提出答辩申请，经导师、学科、学院审核后举行学位论文答辩会。学位论文答辩应在学校规定或批准的最长年限内完成，逾期不再受理。o:p

所在硕士专业学位点聘请3或5名高级职称以上（含具有硕士生培养资格的高级职称专家）的同行专家组成答辩委员会，其中需有1至2名具有相关行业实践经验的校外专家。答辩委员会主席由教授级专家担任。研究生本人的导师不得作为答辩委员会委员。

Students who participate in the program and meet the graduation requirements of both institutions will receive diplomas from both universities

1.Requirement for dissertation topic

The topic should be derived from the actual needs of agriculture and seed industry, and should be a specific issue that needs to be solved in the production, technology, circulation, or management fields of agriculture and seed industry enterprises in a certain region.

2.Format and standardization requirements

The form of the thesis can be a market (industrial) survey report, an application technology experimental study, an industrial planning design, agricultural product development, and agricultural application basic research, etc. Avoid compiling data and literature reviews.

The thesis should be well-organized, specific in content, structured reasonably, clear in hierarchy, fluent in language, accurate in data, scientific in statistics and analysis, and meet the formatting requirements of the state or the institution granting the degree.

The thesis should be written in both Chinese and English, and the English version will be submitted to the Hebrew University. The Chinese version of the thesis should have a minimum of 15,000 words of text.

3. Quality requirements

A thesis paper must be submitted and a defense must be completed. The specific requirements are as follows:

(1) The thesis paper should be based on practical work and research content, demonstrating a certain level of innovation, advanced features, applicability, and workload. It can take the form of either a practical report or research on related issues in the major field.

(2) The thesis should showcase the author's ability to apply modern agricultural science theories, methods, and technical means to effectively address practical production problems.

4.Dissertation Review for (Academic) Master's Degree Application

The review of the thesis is usually conducted one and a half months before the defense. The dispatch, review opinions, and collection and feedback of the review results are handled by the designated thesis defense secretary of the relevant discipline, and the thesis author is not allowed to participate.

5. Dissertation Defense of (Professional) Master student

After the dissertation has been reviewed, revised and improved according to the comments/suggestions from the reviewers, and finalized after approval by the supervisor, the master students who have satisfy the publication requirements as prescribed by the School may apply for the oral defense. He/she shall submit a defense application to the discipline, which should be approved by the supervisor, the discipline and the School. Thesis defense shall be completed within the maximum study duration, and shall not be accepted beyond the time limit.

The professional degree authorized unit shall invite 3 or 5 peer experts with senior professional titles or above (with the qualification of Master's student training) to set up the dissertation defense committee, of which shall include 1 to 2 experts from outside University/institution who have rich practical experience in related industry. The defense committee must be assumed by a professor-level expert. The supervisor of the master student may not serve as a member of the committee.

The dissertation defense shall follow the principles of "upholding the standards, ensuring the quality, and being just and reasonable", and shall be executed according to related regulations.

The final conclusion of the dissertation defense shall be drawn from the secret ballot of the defense committee. If the number of affirmative votes exceeds 2/3 of the number of the committee members, the defense is seen as passed. The master student is recommended for the conferral of a Master's degree, which shall be submitted to the Academic Degree Evaluation Committee of the School for approval. If the number of affirmative votes is less than 2/3 of the number of the committee members, the defense will be seen as failed. For those who fail the dissertation defense, he/she may revise the thesis within 1 year (not exceeding the maximum allowed study duration) and then apply for dissertation review and defense

九、课程设置 Courses

详见下页 Please refer to the next page.

撰稿人签字：　　日 期：

校稿人签字：　　日 期：

审核人签字：　　日 期：

主管院长签字：　　院系公章　　日期：

课程类别 Category	课程代码 Course Code	课程名称 Course Name		学分 Credit	授课语言 Language	开课学期 Semester	是否必修 Compusory	可以计算GPA	必须计算GPA	备注 Note	多选组 Course Group
		中文Chinese	English 英文								
公共基础课 General Fundamental Courses	FL6001	学术英语	English for Academic Purposes	2	英文	秋季	是	是	是		
	MARX6001	新时代中国特色社会主义理论与实践	Theory and Practice of Socialism with Chinese Characteristics in the New Era	2	中文	春季	是	是	是		
	MARX6003	自然辩证法概论	Introduction to Dialectics of Nature	1	中文	春季	是	是	是		
	GE6001	学术写作、规范与伦理	Scientific Writing, Integrity and Ethics	1	中英并行开班	春秋季	是	是	是		
专业基础课 Program Core Courses	STAT6001	基础数理统计	Fundamental Mathematical Statistics	3	中文	春秋季	是	是	是		最少1门、最低3分
	STAT6002	生物数学（I）	Biology Mathematics I	3	中文	春秋季	是	是	是		最少1门、最低3分
	AGRI6008	高级植物栽培生理学	Advanced Physiology of Plant Cultivation	2	中文	秋季	否	是	否		
	AGRI6025	农业推广理论与实践	Theory and Practice of Agricultural Popularization	2	中文	秋季	否	是	否		
	AGRI6027	现代农业创新与乡村振兴战略	Modern Agricultural Innovation and Rural Revitalization Strategy	2	中文	秋季	是	是	是		
	AGRI6034	基因组学概论	Introduction to Genomics	3	英文	秋季	否	是	否	只能在希伯来大学校区选课修读	
	AGRI6035	现代植物生理学导论	Contemporary Approaches to Plant Physiology	2	英文	秋季	否	是	否	只能在希伯来大学校区选课修读	
	GE6003	实验室安全教育	Laboratory Safety Education	0.5	中文	秋季	是	否	否		
	HORT7005	植物生物技术大实验	Practice of Plant Biotechnology	3	中文	秋季	否	是	否		
	AGRI6032	采后生理学	Post-harvest Physiology	2.5	英文	春季	否	是	否	只能在希伯来大学校区选课修读	
	AGRI6033	基因工程	Genetic Engineering	3	英文	春季	否	是	否	只能在希伯来大学校区选课修读	
	GE8001	专业实践	Professional Practice	1	中文	春秋季	是	否	否		
	AGRI6040	当代植物生理学研究方法	Contemporary Approaches to Plant Physiology	2	英文	夏季	是	是	是	希伯来大学授课	
	AGRI6041	作物采后生理和病理	Physiology and Pathology of Postharvest Crops	2	英文	夏季	是	是	是	希伯来大学授课	
专业前沿课 Program Frontier Courses	AGRI8011	作物次级代谢产物	Specialized Metabolites In Crops	2	英文	秋季	否	是	否	只能在希伯来大学校区选课修读	
	AGRI8012	蛋白质工程和纳米生物技术	Protein Engineering and Nano Biotechnology	3	英文	秋季	否	是	否	只能在希伯来大学校区选课修读	
	AGRI8010	农业气象学和蒸散：理论与实践	Agricultural Meteorology and Evapo-transpiration: Theory and Practice	2	英文	春季	是	是	是	希伯来大学授课	
	AGRI8013	植物的光谱表型分析-从理论到实践	Spectral Plant Phenotyping from Theory to Practice	2	英文	春季	否	是	否	只能在希伯来大学校区选课修读	

专业前沿课 Program Frontier Courses	AGRI8014	植物衰老与程序性细胞死亡	Aging and Programmed Cell Death in Plants	2	英文	春季	否	是	否	只能在希伯来大学校区选课修读	
	AGRI8032	植物细胞间的通讯与长距离通讯	Cell-to Cell and Long-Distance Communication in Plants	2	英文	春季	是	是	是	希伯来大学授课	
	AGRI8033	高级实验设计与数据分析	Advanced Design of Experiments and Data Analysis	2	英文	春季	是	是	是	希伯来大学授课	
	ECOL6007	信息技术在农业环境中的应用	Application of Information Technology in Agriculture	2	中文	春季	否	是	否		
	GE6012	学术报告与研讨会	Academic Seminars	2	中文	春季	是	否	否		
专业选修课 Program Elective Courses	AGRI6001	运动草坪管理	Sports Turf Management	2	中文	秋季	否	是	否		
	AGRI6011	园艺产品采后生物学	Postharvest Biology of Horticultural Products	2	中文	秋季	否	是	否		
	ECOL8005	农业生态学	Agticultural Ecology	2	中文	秋季	否	是	否		
	HORT6001	高级植物育种学	Advanced Plant Breeding	2	中文	秋季	否	是	否		
	HORT7001	植物激素生理	Plant Hormones	2	中文	秋季	否	是	否		
	AGRI8015	植物细胞壁显微结构与功能	The Microstructure and Function of Plant Cell Walls	2	英文	春季	否	是	否	只能在希伯来大学校区选课修读	
	AGRI8016	果实坐果与发育	Fruit Set and Development	3	英文	春季	否	是	否	只能在希伯来大学校区选课修读	
	AGRI8017	基因型环境条件和管理谷物育种	Genotypes Environments and Management Interaction in Cereals Breeding	2	英文	春季	否	是	否	只能在希伯来大学校区选课修读	
	AGRI8018	模块化克隆技术培训课	Workshop for Modular Cloning Techniques	2	英文	春季	否	是	否	只能在希伯来大学校区选课修读	
	AGRI8019	葡萄生长发育学	Developmental Biology of Grapevines	3	英文	春季	否	是	否	只能在希伯来大学校区选课修读	
	AGRI8020	园艺研究方法	Research Approaches in Horticulture	2	英文	春秋季	否	是	否	只能在希伯来大学校区选课修读	

农艺与种业(095131)全日制硕士培养方案（专硕含安徽高研院）

Agronomy and Breeding

一、基本信息 Basic Information

院系名称 School	(150)农业与生物学院 School of Agriculture & Biology			适用年级 Grade	2024
适用专业 Major	农艺与种业(095131) Agronomy and Breeding				
项目类型 Program Type	全日制硕士				
最低学分 Min Credit	30	最低GPA学分 Min GPA Credit	18	最低GPA Min GPA	2.7

二、学科简介 Introduction

农艺与种业学科主要依托园艺学科建设。上海交通大学园艺学科始建于1980年，1999年开始培养硕士和博士研究生，2007年建立园艺学博士后流动站，2010年获一级学科博士学位授予权。

园艺学依托上海交通大学强大的理工学科优势，以现代都市园艺基础和应用研究为特色和重点，形成园艺作物发育生物学、园艺作物品质与代谢工程、园艺作物种质创新、设施园艺与高效栽培四个研究方向，在基础生物学、作物遗传育种、资源评价与利用、作物发育、品质形成、抗性机理、植物激素和代谢调控等方面开展研究和探索，在园艺植物新品种培育、高效生态栽培技术开发等领域形成了强有力的研究团队。学科师资力量雄厚，现有专任教师57人，其中讲席教授2人，特聘教授2人，教授18人，副教授30人，讲师9人， 99%教师具有博士学位，90%具有海外经历。学科拥有国家千人1人、长江学者1人、国家杰出青年基金获得者1人，青年千人1人，教育部新世纪人才3人、 上海浦江学者9人、行业岗位科学家、上海市领军人才等多人，形成了基础-应用-推广紧密结合的人才队伍。与美国加利福尼亚戴维斯分校、美国康奈尔大学、美国罗格斯大学、荷兰瓦格宁根大学、英国诺丁汉大学、日本千叶大学等国际知名的农业院校密切合作。拥有农业部都市农业（南方）重点实验室、浦江绿谷国家农业创新集成与示范基地、教育部农林实践基地等省部级研究平台。形成了“学校分析测试中心”、“学院分析测试平台”和“园艺学科研平台”三位一体的科研支撑体系，科研条件建设达到国际一流水平，为研究生培养和科技创新提供了保障。在国际办学方面，本学科中“葡萄与葡萄酒”方向与国际著名葡萄与葡萄酒院校澳大利亚阿德莱德大学于2019年起开始联合培养双硕士的项目。

本培养方案旨在结合上海交通大学综合性大学的优势，培养在农艺与种业相关领域具有国际视野、掌握前沿基础理论知识和应用技术、适应相关专业岗位的优秀

Agronomy and Seed Industry disciplines mainly rely on the construction of horticultural disciplines. Horticulture is one of the key disciplines of Shanghai Jiao Tong University (SJTU) and founded in 1980. It starts to confer the master and doctor degrees in 1999 and accept postdoctor in 2007. Taking the advantages of strong science and engineering disciplines in SJTU, horticulture characters with basic and applied research in modern urban gardening, and develops four research fields, including horticultural crop developmental biology, horticultural crop quality and metabolic engineering, horticultural crop germplasm innovation, facility horticulture and efficient cultivation. Horticulture science focuses on genetics and breeding, resource evaluation and utilization, quality formation, plant hormone and metabolic regulation, plant growth regulation and biotic/abiotic stress mechanism of horticultural crops. Strong research teams specialize in genetics and breeding of horticultural crops, ecological cultivation and development. There are 57 staffs in the horticultural field, including 2 chair Professors, 2 Distinguished Professors, 18 Professors, 30 Associate Professors and 9 Assistant Professors. 99% teachers with doctoral degree, and 90% teachers with at least one yearne yearuding 2 chair Professors, 2 Distinguished Profeng Scholar, 1 Distinguished Young Scholar, 2 winners of New Century Excellent Talents support program, 2 outstanding academic leader in Shanghai, 1 gainers of Tang Cornell-China Scholars Program and 2 post experts of National Modern Agriculture Industry Technology System (Viticulture and Enology).We closely collaborated with globally renowned universities and agricultural colleges, such as University of California-Davis, Cornell University, University of Rogers, Wageningen University, University of Nottingham and Chiba University of Japan. The discipline has the Urban Agricultural (South China) Key Laboratory of Ministry of Agriculture, Pujiang Green Valley National Agricultural Innovation Integration and Demonstration Base, and Agricultural and Forestry Practice Base of Ministry of Education. Three research platforms, including Instrumental Analysis Center of SJTU, School of Agriculture and Biology (SAB) and Department of Plant Sciences, could support the top level research in the world.The Dual Master Degrees program (Viticulture and Enology) between University of Adelaide and SJTU has been established in our School and will enroll the students from September of 2019.

三、培养目标 Program Objective

1. 基本素质

学术道德。应恪守学术道德规范与研究伦理，遵守国家有关法律和规章制度，充分尊重他人的学术成果，不得捏造、篡改、拼凑试验数据或结果，在严格遵守知识产权的基础上借鉴和创新。

学术素养。应热爱农艺与种业学科，对园艺科学问题具有浓厚的兴趣。具备较为宽广坚实的学科基础知识和实践技能，把握国内外现代园艺科学发展动态，具备创新思维和团队协作精神。能胜任高等院校教学、科学研究或科技管理等工作，具备农艺与种业高端人才的素养。

2. 基本能力

获取知识的能力。具有通过多种手段或途经获取园艺学科相关研究前沿动态的能力，能够充分利用文献资料、网络、合作交流、国内外学术会议和园艺生产实践等多种方法途径获取专业知识。

学术鉴别能力。应具有敏锐的学术鉴别能力，即对园艺学科已有的研究成果真实性、创新性的鉴别，准确发现研究课题关键点。

size: 14px;">
科学研究能力。能够从农艺与种业产业和学科发展过程中，针对全产业链中的具体环节，提出有价值的研究问题，通过查阅文献，设计实验方案，独立组织实施、分析、总结并撰写论文。通过上述科研活动训练，具备独立承担有关科研项目的能力。
实践能力。应具有较强的实践能力，善于将基本理论和园艺现象、生产与管理相结合，具备良好的协作精神和一定的组织能力。应参与相关的生产与研究工作，了解社会、农业、以及生产实践对专业理论和技术的需求。

1. Basic quality
Academic ethics. We require our students to abide by academic and research ethics, fully respect others' academic achievements, and learn from and innovate on the basis of strictly abiding by intellectual property rights.
Professional quality. Students are trained to have a good scientific attitude and team spirit, systematically grasp various basic theoretical knowledge and research methods involved in the field of agronomy and breeding, and have the ability to find, analyze and solve problems, as well as the ability of innovation and entrepreneurship.

2. Basic ability
Obtain basic knowledge. Students are expected to understand current status of horticultural industry and research, and to obtain a wide range of professional knowledge through various approaches, including reference, internet, collaboration, symposium and practice.
Academic identification. Students are expected to have the ability of academic identification to find the key issues of research projects in horticultural crops.
Scientific research. Students are expected to systematically master the professional knowledge in the field of horticulture, including genetics and breeding, cultivation and postharvest, and to propose valuable scientific project through independent reading, designing and conducting experiments until writing articles.
Practice. Students are expected to have strong practice ability in agronomy and breeding, and to apply theory to production and management through collaboration. To understand the needs of professional theories and technologies in production, students need to participate production and research projects.
Academic exchange. To fulfill academic exchange, students are expected to grasp at least one foreigen language for reading, writing and oral skills in international conferences.

四、培养方式及学习年限 Training Mode and Study Duration

硕士生基本学习年限一般为2.5年，最短学习年限一般不少于2年，最长可延长1学年。
攻读专业学位硕士研究生的培养方案应根据相关专业学位教育指导委员会的要求，并参照学校有关要求制定。

硕士研究生的日常培养工作实行导师负责和导师组培养相结合的办法。导师与导师组在新生入学后2周内指导硕士研究生制定切实可

The basic study duration of the Master degree programs normally is 2 to 3 years. In general, the study duration of Master students should be no less than 2 years. And the study duration can be extended 1 year to the maximum.
The program curriculum for professional master degree program should follow the requirements of the corresponding Steering Committee for Professional Degree Education and the regulations of the University.
The supervisor and the supervising group are jointly responsible for the training of the Master student. The supervisor and the supervising group will guide the Master student to develop a feasible and tailored training plan within the first 2 weeks after enrollment. The Master students shall complete the coursework, scientific research, professional practice, thesis work and other work as specified in the program curriculum.

五、课程学习要求 Course Requirement

课程类别 Course Type	学分要求 Min Credits	GPA 学分要求 Min GPA Credit	备注 Note
公共基础课 General Fundamental Courses	6	6	
专业基础课 Program Core Courses	0		
专业前沿课 Program Frontier Courses	0		
专业选修课 Program Elective Courses	0		

六、培养过程要求 Training Requirement

1. 硕士开题报告
硕士生学位论文开题在第二学年第一学期结束前完成。基本完成培养计划中规定的课程学习并成绩合格，GPA满足培养方案要求。专家小组至少由3名相关学科具有硕士研究生指导资格的专家对开题报告进行论证。首次学位论文开题未通过的，可在下一学期再次申请开题；两次论文开题均未通过的，由开题报告专家组作出应予退学处理建议。

2. 硕士生中期检查
完成培养计划中规定的全部课程学习并成绩合格；GPA不低于2.7；学位论文开题已通过。中期检查应在学位论文送审前3个月进行，主要内容包括：研究生课程学习完成情况、论文工作进展情况、个人总结、导师评价以及考核小组面试评审等。专家小组由3名以上相关学科具有硕士研究生指导资格的专家组成的专家组对学生报告进行答辩评审。中期检查的结果按“通过”或“不通过”记载。中期检查不通过的硕士研究生，应给予警告，并要求其给出改进措施，上报给所在院系。经整改可于下一学期再次进行中期检查，2次中期检查不通过者，由专家组作出应予退学处理建议。

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3. 专业学位研究生项目须列出专业实践要求；

结合园艺学科特色，利用校企优势互补，共建校内、校外实践基地；建设、配备一支数量稳定、实践经验丰富的实践教学师资队伍，保障专业实践按计划、规范化开展。专业学位硕士研究生的培养实行校内外双导师共同指导的方式，以校内导师指导为主，校外导师参与实践过程、项目研究和论文等多个环节的指导工作。专业学位硕士研究生的课程教学要加强案例教学、实践（现场）教学、模拟训练等教学方法的运用，突出专业学位硕士研究生实践研究和技术创新能力的培养，强化对专业学位硕士研究生运用所学基本知识和技能解决实际问题的能力和水平的考核。专硕在学期间，必须保证不少于半年的专业实践教学（安徽高等研究院专项硕士生根据专项要求执行），获取专业实践课程的学分。

1. Thesis proposal of master student

The master degree thesis proposal should generally be carried out before the end of thefirst semester of the second academic year. The students shall complete all thecourses as specified in the training plan and pass the exams, the GPA should meet the requirement of program curriculum.The committeeofat least three master supervised experts in the related discipline should evaluate the thesis proposal reports. The students who failed to pass the evaluation at the first time could apply for a second chance. The committee should give a suggestion of drop out of schooling to whom failed at the re-assessment.

2. Mid-term assessment of master student

The students shall complete all thecourses as specified in the training plan and pass the exams, the GPA should be no less than2.7. And also the students have passed thesis proposal assessment. Mid-term assessment should be completed at least 3-month in advance of thesis review. The assessment shall

include a review of course completion, the progress of the thesis,personal progresssummary, evaluation by thesupervisor, and an oral presentation to the assessment committee.A Mid-term assessment committee ofat least three master supervised experts should organizea defense assessment of student's mid-term report.The results of the assessment shall be markedas passed/failed.The master student whose mid-term assessmentfailed to pass shall be warned, and be requested to submit a corrective actionreport. Those who have improved their mid-term reports can participate in a re-assessment in the next semester. The committee should give a suggestion of drop out of schooling to whom failed at the re-assessment.

3. Requirement for Practice of the Professional Master Degree Programs

七、学术成果要求 Requirement on Academic Achievements

硕士研究生应从事农艺与种业学科培养目标相应的科学研究，达到国内一流学科硕士学术水平。鼓励取得创新性成果和技术发明等，毕业要求遵照上海交通大学和农业与生物学院的规定。答辩之前，学位论文需通过同行评审。

Master student should achieve the first-class discipline master academic level in China, and academic achievements should be in accordance with the graduation requirements of Shanghai Jiao Tong University and the School of Agriculture and Biology. Master student should be engaged in scientific research corresponding to the training objectives of agronomy and breeding, and achieve certain innovative results. Master students are encouraged to apply for patent. Before applying for defense, dissertation must pass peer review.

八、学位论文 Thesis/dissertation work

1. 选题要求

选题应来源于园艺产业的实际需求,是某一区域园艺产业或科技型企业发展中急需解决的生产、技术、流通或管理等领域的具体命题。

2. 学位论文形式和规范要求

14px;">论文形式可以是市场(产业)调研报告、应用技术试验研究园艺产业规划设计园艺产品开发、产业案例分析、园艺应用基础研究等,应避免资料汇总、文献综述等形式。

学位论文写作要求条理清晰,内容具体,结构合理,层次分明,文理通顺,数据真实,统计和分析科学,版式符合国家或学位授予单位的学位论文规范。

3.学位论文水平要求

应提交学位论文并完成答辩。具体要求如下:

(1)学位论文必须根据实践工作与研究内容进行论文写作,要有一定的创新性、先进性、应用性和工作量。具体形式可以是实践报告以及本专业领域相关问题的研究。

(2)论文能体现作者综合运用园艺科学理论、方法和技术手段解决园艺生产实际问题的能力。

(3)论文应以中文撰写,正文一般不少于1.5万字。

4.

1. Requiremnent for dissertation topic

The topic of master dissertation should be directly from the needs of horticultural industry or related enterprises, such as the scientific or practical problems of production, technology, logistic or management issues.

2. Format and standardization requirements

The dissertation shall comply with the basic format of the dissertation stipulated by the nation and the conferring authority. It could be the following formats, such as, marketing report, applied research, industry design, horticultural product development, horticultural case analysis, basic research for applied horticulture, and should be avoid the summary of conference and literature review.

3. Quality requirements

The master degree thesis of horticulture should have a certain academic level, theoretical significance, or practical value. It includes the following aspects:

(1) The dissertation should be based on practical work and research with a certain innovation, advancement, practical value and workload..

2.0″>(2) The dissertation should be scientific and integrative to solve practical horticultural issues.
(3) The dissertation should be writing in Chinese and not less than 15000 words in the main text.

4. Dissertation Review for (Academic) Master’ s Degree Application
Dissertation review shall be conducted one and a half months before the dissertation defense. The Dissertation secretary, designated by the student’ s School, shall be responsible for the delivery of dissertation

九、课程设置 Courses

详见下页 Please refer to the next page.

撰稿人签字： 日 期：
校稿人签字： 日 期：
审核人签字： 日 期：

主管院长签字： 院系公章 日期：

课程类别 Category	课程代码 Course Code	课程名称 Course Name		学分 Credit	授课语言 Language	开课学期 Semester	是否必修 Compusory	可以计算GPA	必须计算GPA	备注 Note	多选组 Course Group
		中文Chinese	English 英文								
公共基础课 General Fundamental Courses	FL6001	学术英语	English for Academic Purposes	2	英文	秋季	是	是	是		
	MARX6001	新时代中国特色社会主义理论与实践	Theory and Practice of Socialism with Chinese Characteristics in the New Era	2	中文	春季	是	是	是		
	MARX6003	自然辩证法概论	Introduction to Dialectics of Nature	1	中文	春季	是	是	是		
	GE6001	学术写作、规范与伦理	Scientific Writing, Integrity and Ethics	1	中英并行开班	春秋季	是	是	是		
专业基础课 Program Core Courses	STAT6001	基础数理统计	Fundamental Mathematical Statistics	3	中文	春秋季	是	是	是		最少1门、最低3分
	STAT6002	生物数学（I）	Biology Mathematics I	3	中文	春秋季	是	是	是		最少1门、最低3分
	AGRI6008	高级植物栽培生理学	Advanced Physiology of Plant Cultivation	2	中文	秋季	否	是	否		
	AGRI6025	农业推广理论与实践	Theory and Practice of Agricultural Popularization	2	中文	秋季	否	是	否		
	AGRI6027	现代农业创新与乡村振兴战略	Modern Agricultural Innovation and Rural Revitalization Strategy	2	中文	秋季	是	是	是		
	GE6003	实验室安全教育	Laboratory Safety Education	0.5	中文	秋季	是	否	否		
	HORT7005	植物生物技术大实验	Practice of Plant Biotechnology	3	中文	秋季	否	是	否		
	GE8001	专业实践	Professional Practice	1	中文	春秋季	是	否	否		
专业前沿课 Program Frontier Courses	AGRI6005	生物统计软件应用	Application of Statistical Analysis System	2	中文	秋季	否	是	否		
	AGRI8001	园艺科学进展	Advance in Horticulture	2	中文	秋季	否	是	否		
	ECOL6007	信息技术在农业环境中的应用	Application of Information Technology in Agriculture	2	中文	春季	否	是	否		
	GE6012	学术报告与研讨会	Academic Seminars	2	中文	春季	是	否	否		
专业选修课 Program Elective Courses	AGRI6001	运动草坪管理	Sports Turf Management	2	中文	秋季	否	是	否		
	AGRI6011	园艺产品采后生物学	Postharvest Biology of Horticultural Products	2	中文	秋季	否	是	否		
	ECOL8005	农业生态学	Agticultural Ecology	2	中文	秋季	否	是	否		
	HORT6001	高级植物育种学	Advanced Plant Breeding	2	中文	秋季	是	是	否		
	HORT7001	植物激素生理	Plant Hormones	2	中文	秋季	是	是	否		

生态学(071300)全日制硕士培养方案（学硕）

Ecology

一、基本信息 Basic Information

院系名称 School	(150)农业与生物学院 School of Agriculture & Biology			适用年级 Grade	2024
适用专业 Major	生态学(071300) Ecology				
项目类型 Program Type	全日制硕士				
最低学分 Min Credit	30	最低GPA学分 Min GPA Credit	18	最低GPA Min GPA	2.7

二、学科简介 Introduction

生态学是研究生物与其环境之间相互关系的学科，主要目的是保护和利用生物多样性，防控有害生物，维持自然生态系统的安全性，人与生物圈的协调性，现代经济发展的高效性和可持续性，从而实现人类社会的健康绿色发展。现代生态学的研究尺度进一步向微观和宏观两个方面发展，如分子生态学和全球生态学。近几十年来，生态学还注重学科交叉和实际应用，正越来越紧密地与社会经济发展相结合，并服务于生产实践，成为一门多学科交叉应用性强的基础学科。无论是针对全球生态安全，区域生态文明建设，还是生态经济管理和工程等方面，生态学都具有更迫切的需求和更广阔的前景。

学科在都市农业生态与生境控制、作物生态与有害生物防控、乡村环境生态与生物质能源工程、城乡生态与区域规划管理等研究方向上形成了明显的特色和优势。学科专任教师队伍年龄、职称、学科背景结构合理，100%具有博士学位、90%具海外经历。建有国家级长三角区域生态环境变化与综合治理野外科学观测研究站、国家新农村发展研究院、农业农村部都市农业重点实验室、教育部农林实践基地、交大-以色列希伯来大学现代农业联合研究中心、康奈尔大学课程中心。与美国、芬兰、日本等国家的10多个知名学校和科研机构建立了良好的联合培养、学术交流和学生交换等国际合作关系。学科实施基地团队项目一体化，教学与科研综合实力达到国际先进水平，交叉引领创新能力强。100%专任教师主持国家自然基金、重点研发计划等国家级项目，科研经费充足，省部级及以上科研奖项多项，种养殖耦合、木霉菌生防、生物滤池、稻蛙共生等一批创新性成果得到产业化应用示范，年均专利转化 5件以上，效益显著。

上海交通大学生态学学科2003年获硕士学位授予权，2005年获博士学位授予权，2011年获一级学科博士点，同年设立博士后流动站。多年以来，学科培养了一大批具有丰富专业知识和扎实科研能力的高层次、复合型人才。毕业后能够在高等院校、科研院所或专业部门从事相关科学研究工作，在科学研究上能独立取得突破性研究成果，在生产实践中具有解决重大技术与工程问题的能力。

Ecology is a discipline that studies the relationship between organisms and their environment. Its main purpose is to protect and utilize biodiversity, prevent and control harmful organisms, maintain the safety of natural ecosystem, the coordination between human and biosphere, and the efficiency and sustainability of modern economic development, so as to realize the healthy and green development of human society. The research scale of modern ecology further develops to micro and macro aspects, such as molecular ecology and global ecology. In recent decades, ecology also pays attention to interdisciplinary and practical application, is more and more closely combined with social and economic development, and serves for production practice, becoming a multi-disciplinary interdisciplinary application of strong basic disciplines. Whether it is for global ecological security, regional ecological civilization construction, or ecological economic management and engineering, ecology has more urgent needs and broader prospects.

The discipline has formed obvious characteristics and advantages in urban agricultural ecology and habitat control, crop ecology and pest control, rural environmental ecology and biomass energy engineering, urban and rural ecology and regional planning and management. The age, title and background of full-time teachers are reasonable. 100% of them have doctor's degree and 90% have overseas experience. There are national scientific observation and research station of Yangtze River Delta ecological environment change and management, National New Rural Development Research Institute, Key Laboratory of urban agriculture of Ministry of agriculture and rural areas, agriculture and forestry practice base of Ministry of education, modern agriculture joint research center of JiaoTong University Israel Hebrew University and Curriculum Center of Cornell University. It has established good international cooperation relations with more than 10 well-known schools and scientific research institutions in the United States, Finland, Japan and other countries, such as joint training, academic exchange and student exchange. The project integration of the discipline implementation base team, the comprehensive strength of teaching and scientific research has reached the international advanced level, and the ability of cross leading innovation is strong. 100% of the full-time teachers presided over national projects such as National Natural Science Foundation of China and key R &D programs, with sufficient scientific research funds, a number of scientific research awards at provincial and ministerial level and above, and a number of innovative achievements such as breeding coupling, Trichoderma biocontrol, biofilter, rice frog symbiosis have been industrialized applied and demonstrated, with an average annual patent conversion of more than 5, with remarkable benefits.

In 2003, Shanghai Jiaotong University obtained the right to confer master's degree in ecology, the right to confer doctor's degree in 2005, the right to confer doctor's degree in primary discipline in 2011, and the post doctoral mobile station was established in the same year. Over the years, the discipline has cultivated a large number of high-level and compound talents with rich professional knowledge and solid scientific research ability. After graduation, they can engage in relevant scientific research work in Colleges and universities, scientific research institutes or professional departments, independently obtain breakthrough research results in scientific research, and have the ability to solve major technical and engineering problems in production practice.

三、培养目标 Program Objective

1.专业基础

培养具有现代生态学专业理论和技术基础，适应我国经济社会发展需要的研究型与实用型相结合的高层次创新人才。了解国内外生态学的理论与技术发展趋势；具有生态学专业素养和解决生产问题的专业技能；基本具备独立从事本专业教学、科研、技术研发以及生态、工程管理的能力。

2.专业技能

获取知识的能力。有能力获得在生态学领域开展研究所需背景知识，具有较好的生态学与相关交叉学科专业基础、计算机水平及外语水平，有能力对现有知识进行利用和扩充，有指导学生的能力。

科学研究能力。能在某一专门生态学领域获得较强的专业能力，能够为解决某一科学问题而设计和实施科学研究方案调查或实验，能对所获得的研究结果进行合理分析和客观评价。掌握相关研究方法和实验技术。能准确表述研究结果，并能够发表在国内外专业期刊上。

实践能力。具有较强的实地调查、观测和科学研究动手能力，有较好的独立工作能力，具备良好的团队合作能力。

1. Basic knowledge

Cultivate high-level innovative talents who have the theoretical and technical basis of modern ecology and meet the needs of economic and social development in China. Understand the theory and technology development trend of ecology at home and abroad; have the professional quality of ecology and the professional skills to solve production problems; basically have the ability to independently engage in the teaching, scientific research, technical research and development of this major, as well as the ecological and engineering management.

2. Academic ability

The ability to acquire knowledge. Ability to acquire the background knowledge needed for research in the field of ecology, have a good professional foundation of ecology and Related Interdisciplinary disciplines, computer level and foreign language level, have the ability to use and expand existing knowledge, and have the ability to guide students.

line-height:125%;layout-grid-mode:char;mso-layout-grid-align:none">Scientific research ability. Can obtain strong professional ability in a special field of ecology, can design and implement scientific research plan investigation or experiment for solving a scientific problem, can reasonably analyze and objectively evaluate the research results. Master relevant research methods and experimental techniques. Can accurately express the research results, and can be published in professional journals at home and abroad.
Practical ability. Strong ability of field investigation, observation and scientific research, good ability of independent work, good team work ability.

四、培养方式及学习年限 Training Mode and Study Duration

1.学习年限
一般为2.5年。最短学习年限一般不少于2年，最长可延长1学年。
2.培养方式
硕士研究生的日常培养工作实行导师负责和导师组培养相结合的办法。导师与导师组在新生入学后2周内指导硕士研究生制定切实可行的培养计划。并在培养期间完成培养方案规定的课程学习、科学研究、专业实践和论文撰写等工作。

1. Study duration
The basic study duration of the Master degree programs normally is two and a half years. In general, the study duration of Master students should be no less than 2 years. And the study duration can be extended 1 year to the maximum.
2. Training of Master Degree Students
The program curriculum for professional master degree program should follow the requirements of the corresponding Steering Committee for Professional Degree Education and the regulations of the University.
The supervisor and the supervising group are jointly responsible for the training of the Master student. The supervisor and the supervising group will guide the Master student to develop a feasible and tailored training plan within the first 2 weeks after enrollment. The Master students shall complete the coursework, scientific research, professional practice, thesis work and other work as specified in the program curriculum.

五、课程学习要求 Course Requirement

课程类别 Course Type	学分要求 Min Credits	GPA 学分要求 Min GPA Credit	备注 Note
公共基础课 General Fundamental Courses	6	6	
专业基础课 Program Core Courses	9		

专业前沿课 Program Frontier Courses	0		
专业选修课 Program Elective Courses	0		

六、培养过程要求 Training Requirement

1.开题报告

硕士生学位论文开题在第二学年第一学期结束前完成。基本完成培养计划中规定的课程学习并成绩合格，GPA满足培养方案要求。专家小组至少由3名相关学科具有硕士研究生指导资格的专家对开题报告进行论证。首次学位论文开题未通过的，可在下一学期再次申请开题；两次论文开题均未通过的，由开题报告专家组作出应予退学处理建议。

2.中期检查

完成培养计划中规定的全部课程学习并成绩合格；GPA不低于2.7；学位论文开题已通过。中期检查应在学位论文送审前3个月进行，主要内容包括：研究生课程学习完成情况、论文工作进展情况、个人总结、导师评价以及考核小组面试评审等。专家小组由3名以上相关学科具有硕士研究生指导资格的专家组成的专家组对学生报告进行答辩评审。中期检查的结果按“通过”或“不通过”记载。中期检查不通过的硕士研究生，应给予警告，并要求其给出改进措施，上报给所在院系。经整改可于下一学期再次进行中期检查，2次中期检查不通过者，由专家组作出应予退学处理建议。

1. Thesis proposal of master student

The master degree thesis proposal should generally be carried out before the end of the first semester of the second academic year. The students shall complete all the courses as specified in the training plan and pass the exams, the GPA should meet the requirement of program curriculum. The committee of at least three master supervised experts in the related discipline should evaluate the thesis proposal reports. The students who failed to pass the evaluation at the first time could apply for a second chance. The committee should give a suggestion of drop out of schooling to whom failed at the re-assessment.

2. Mid-term assessment of master student

The students shall complete all the courses as specified in the training plan and pass the exams, the GPA should be no less than 2.7. And also the students have passed thesis proposal assessment. Mid-term assessment should be completed at least 3-month in advance of thesis review. The assessment shall include a review of course completion, the progress of the thesis, personal progress summary, evaluation by the supervisor, and an oral presentation to the assessment committee.A Mid-term assessment committee of at least three master supervised experts should organize a defense assessment of student's mid-term report. The results of the assessment shall be marked as passed/failed.The master student whose mid-term assessment failed to pass shall be warned, and be requested to submit a corrective action report. Those who have improved their mid-term reports can participate in a re-assessment in the next semester. The committee should give a suggestion of drop out of schooling to whom failed at the re-assessment.

七、学术成果要求 Requirement on Academic Achievements

硕士研究生应从事生态学科培养目标相应的科学研究，并取得一定的创新性成果，达到国内一流学科硕士学术水平。鼓励在学期间以第一作者在国内外学术刊物上发表与学位论文内容相关的高水平学术论文，毕业要求遵照上海交通大学和农业与生物学院的规定。答辩之前，学位论文需通过同行评审。

Master student should achieve the first-class discipline master academic level in China, and academic achievements should be in accordance with the graduation requirements of Shanghai Jiao Tong University and the School of Agriculture and Biology. Master student should be engaged in scientific research corresponding to the training objectives of ecology discipline, and achieve certain innovative results. Master student are encouraged to publish high-level academic papers related to the contents of dissertation in domestic and foreign academic journals as the first author. Before applying for defense, dissertation must pass peer review.

八、学位论文 Thesis/dissertation work

1.论文选题

论文选题应具有明确的科学意义或应用价值，立意新颖，论文要有一定的先进性和工作量，能体现作者综合运用生态学科理论、方法和技术手段解决问题的能力。

2.论文形式

学位论文应反映研究生综合运用知识技能解决问题的能力和水平，应具有一定的创新性和学术参考价值，核心研究内容及其结果达到可在核心期刊上发表的水平。以论文形式表现，技术路线清楚，数据可信，分析可靠，书写规范，文字流畅，图表清晰。

3.论文送审

学位论文评审一般于答辩前一个半月进行，学位论文的派送、评审意见与结果的回收汇总和反馈，由所属学科指定答辩秘书负责，论文作者不得参与。

4. 论文答辩

通过论文评审并按评审专家意见修改、完善，经导师审核定稿，且达到学院规定的科研成果要求者，向所在学科提出答辩申请，经导师、学科、学院审核后举行学位论文答辩会。学位论文答辩应在学校规定或批准的最长年限内完成，逾期不再受理。

学科聘请5名具有高级职称的同行专家（含具有硕士生培养资格的高级职称专家）组成答辩委员会（同等学力申请硕士学位必须由5名同行专家组成答辩委员会，其中1名为申请者所在单位以外的校外专家）。答辩委员会主席由教授级专家担任。研究生本人的导师不得作为答辩委员会委员。

学位论文答辩会应遵循“坚持标准、保证质量、公正合理”的原则按学校相关政策执行。

答辩结论以答辩委员会无记名投票结果决定。得票数超过答辩委员会成员2/3者，为答辩通过，建议授予硕士学位并提请所属学科及学院学位评定委员会审核。得票数未超过答辩委员会成员2/3者，为答辩未通过。答辩未通过者，可在一年内（不超过规定的最长学习年限）补充和修改论文，按上述原则重新答辩一次。

1.Topic selection

The thesis should have a clear scientific meaning or application value, and a new conception. The thesis must have advanced and workload, and it can embody the ability of the author to solve problems comprehensively by using the theory, method and technique of ecological discipline.

2.Thesis form

The dissertation should reflect the ability and level of graduate students to use knowledge and skills to solve problems. It should have certain innovation and academic reference value. The core research content and results should reach the level that can be published in core journals. In the form of paper, the technical route is clear, the data is reliable, the analysis is reliable, the writing is standard, the writing is fluent, and the chart is clear.

3.Dissertation Review for Academic Master’ s Degree Application

Dissertation review shall be conducted one and a half months before the dissertation defense. The Dissertation secretary, designated by the student’ s School, shall be responsible for the delivery of dissertation as well as collection and feedback of review comments and results, while the author of the dissertation shall not participate in the process.

4.Dissertation Defense of Academic Master student

After the dissertation has been reviewed, revised and improved according to the comments/suggestions from the reviewers, and finalized after approval by the supervisor, the master students who have satisfy the publication requirements as prescribed by the School may apply for the oral defense. He/she shall submit a defense application to the discipline, which should be approved by the supervisor, the discipline and the School. Thesis defense shall be completed within the maximum study duration, and shall not be accepted beyond the time limit.

The discipline employs 5 peer experts with senior professional title (including senior professional title experts with master's degree training qualification) to form the Defense Committee (5 peer experts must form the Defense Committee for the application of master's degree with the same academic ability, including 1 out of school expert outside the applicant's unit). The chairman of the defence committee shall be a professor level expert. The supervisor of the master student may not serve as a member of the committee.

The dissertation defense shall follow the principles of “upholding the standards, ensuring the quality, and being just and reasonable”, and shall be executed according to related regulations.

The final conclusion of the dissertation defense shall be drawn from the secret ballot of the defense committee. If the number of affirmative votes exceeds 2/3 of the number of the committee members, the defense is seen as passed. The master student is recommended for the conferral of a Master’ s degree, which shall be submitted to the Academic Degree Evaluation Committee of the School for approval. If the number of affirmative votes is less than 2/3 of the number of the committee members, the defense will be seen as failed. Those who fail to pass the defense may supplement and modify the thesis within one year (not exceeding the prescribed maximum study period), and reply again according to the above principles.

九、课程设置 Courses

详见下页 Please refer to the next page.

撰稿人签字：　　日 期：

校稿人签字：　　日 期：

审核人签字：　　日 期：

主管院长签字：　　院系公章　　日期：

课程类别 Category	课程代码 Course Code	课程名称 Course Name		学分 Credit	授课语言 Language	开课学期 Semester	是否必修 Compusory	可以计算GPA	必须计算GPA	备注 Note	多选组 Course Group
		中文Chinese	English 英文								
公共基础课 General Fundamental Courses	FL6001	学术英语	English for Academic Purposes	2	英文	秋季	是	是	是		
	MARX6001	新时代中国特色社会主义理论与实践	Theory and Practice of Socialism with Chinese Characteristics in the New Era	2	中文	春季	是	是	是		
	MARX6003	自然辩证法概论	Introduction to Dialectics of Nature	1	中文	春季	是	是	是		
	GE6001	学术写作、规范与伦理	Scientific Writing, Integrity and Ethics	1	中英并行开班	春秋季	是	是	是		
专业基础课 Program Core Courses	STAT6001	基础数理统计	Fundamental Mathematical Statistics	3	中文	春秋季	是	是	是		最少1门、最低3分
	STAT6002	生物数学（I）	Biology Mathematics I	3	中文	春秋季	是	是	是		最少1门、最低3分
	ECOL6001	高级植物病理学	Advanced Plant Pathology	2	中文	秋季	否	是	否		
	ECOL6004	土壤生态学	Soil Ecology	2	中文	秋季	否	是	否		
	ECOL6005	污染生态学	Pollution Ecology	3	中文	秋季	否	是	否		
	ECOL6008	生态学研究方法	Research Methodology for Ecology	2	中文	秋季	否	是	否		
	GE6003	实验室安全教育	Laboratory Safety Education	0.5	中文	秋季	是	否	否		
	ECOL6002	生态毒理学	Ecotoxicolgy	2	中文	春季	否	是	否		
	ECOL6003	分子生态学	Molecular Ecology	2	中文	春季	否	是	否		
	ECOL6006	现代微生物生态学	Modern Microbial Ecology	2	中文	春季	否	是	否		
	ECOL6007	信息技术在农业环境中的应用	Application of Information Technology in Agriculture	2	中文	春季	否	是	否		
专业前沿课 Program Frontier Courses	ECOL8005	农业生态学	Agticultural Ecology	2	中文	秋季	否	是	否		
	ECOL8011	现代生态学	Modern Ecology	2	中文	秋季	否	是	否		
	ECOL8003	分子植物病理学	Molecular Phytopathology	2	英文	春季	否	是	否		
	ECOL8004	可再生能源工程	Renewable Energy Engineering	2	英文	春季	否	是	否		
	ECOL8010	污染生态修复技术	Ecological Restoration Technology in Pollution Control	2	中文	春季	否	是	否		
	ECOL8012	现代植物检疫原理与新技术	New Technologies and Principle Of Plant Quarantine	2	中文	春季	否	是	否		
	GE6012	学术报告与研讨会	Academic Seminars	2	中文	春季	是	否	否		
专业选修课 Program Elective Courses	ECOL8015	植物病理学专题	Phytopathology Club	2	中文	秋季	否	是	否		
	ECOL8016	植物病原细菌学	Plant Bacteriology	2	中文	秋季	否	是	否		
	ECOL8006	生态学专题	Special Topic of Ecology	2	中文	春季	否	是	否		
	ECOL8007	生物农药	Biopesticide	2	中文	春季	否	是	否		
	ENVR6011	气候灾害的全球变化原理	Global Change Principle of Climate Disaster	2	中文	春季	否	是	否		
	PVET8007	现代仪器分析技术	Modern Instrument Analysis Method	2	中文	春季	否	是	否		

生物与医药(086000)全日制硕士培养方案（专硕）

Biological and Pharmaceutical Engineering

一、基本信息 Basic Information

院 系 名 称 School	(150)农业与生物学院 School of Agriculture & Biology			适 用 年 级 Grade	2024
适 用 专 业 Major	生物与医药(086000) Biological and Pharmaceutical Engineering				
项 目 类 型 Program Type	全日制硕士				
最 低 学 分 Min Credit	30	最低GPA学分 Min GPA Credit	18	最低GPA Min GPA	2.7

二、学科简介 Introduction

上海交通大学食品科学与工程学科始建于1992年，拥有食品科学与工程一级学科硕士点、博士点、食品安全与营养交叉学科博士点以及食品科学与工程博士后流动站。本学科定位于“立足上海、服务全国、面向世界”，坚持“需求牵引、特色发展、争创一流”的发展理念，努力实现“抢占学科前沿、对接国家战略、服务食品产业、促进国民健康”的目标。经过32年的积累与发展，形成了食品安全、食品科学、食品营养和农产品加工与贮藏工程四个主要的学科方向。

本学科目前有专任教师50人，正高19人，45岁以下中青年教师占63%，具有博士学位和海外研究背景的教师分别占100%和86%。每个学科方向均有学术造诣深厚、国际影响较大的科学家担任学科带头人，且每个方向专任教师均超过10人。本学科拥有省部级以上教学科研平台5个，还有上海交大—俄勒冈州立大学环境可持续与食品质量控制创新中心、上海交通大学陆伯勋食品安全研究中心和马铃薯工程技术研究中心等平台，具备完善的研究生培养条件。

秉持上海交通大学“价值引领、知识探究、能力建设、人格养成”四位一体的教育理念，本学科着力培养适应我国社会主义现代化建设需要、与国际接轨、全面发展的食品科学与工程学科高级复合型人才。本学科人才培养以国际化为重要手段，先后同多所国际一流大学签订了双学位和联合培养的合作协议，包括美国康奈尔大学、以色列希伯来大学等；注重培养学生的创新能力，通过绿谷杯等多种形式支持学生进行创新实践，并在国家创新大赛中获奖。

Food Science and Technology discipline in Shanghai Jiao Tong University was established in 1992, which is a first-level discipline authorized to offer master and doctorate degree in Food Science and Technology, and it is a discipline authorized to offer an interdisciplinary doctorate degree in Food Safety and Food Nutrition. The discipline is positioned as “based on Shanghai, serving the country, and facing the world”, adheres to the development concept of “demand traction, characteristic development, and striving for first-class”, and strives to achieve the goal of “seizing the frontier of the subject, connecting with national strategies, serving the food industry, and promoting national health”. After nearly 32-years accumulation and development, four main research fields are formed including food safety, food science, food nutrition and agricultural product processing and storage engineering.

Up to now, the department has 50 full-time faculty members (including 19 professors), among which 63% are young teachers under the age of 45, 100% have doctorate degree, 86% have overseas research experience. In each research field, there are over 10 faculty members and distinguished scientists with profound academic attainments and international influences serve as academic leaders. This department has perfect teaching and research platforms, including 5 provincial and ministerial level platforms, and some university level platforms, such as SJTU-OSU Environmental Sustainability and Food Quality Control Innovation Center, SJTU-Bor S. Luh Food Safety Research Center, SJTU-Potato Engineering Technology Research Center, etc.

Adhering to the four-in-one educational philosophy of SJTU (value guidance, knowledge exploration, capacity building and personality development), the department focuses on training comprehensively composite talents meeting the demand of China's socialist modernization construction and with international vision. The department have several double-degree and joint programs cooperating with world-class universities, such as Cornell University in the USA and Hebrew University in Israel. All the time, the department pays great attention to develop students' innovation ability. Students are encouraged to take part in multiple innovative practices, and many students have won prizes in international and domestic innovation competitions.

三、培养目标 Program Objective

根据上海城市定位与国内外对食品科学人才需求，培养具有起点高，基础厚，外语和信息技术强的实用性研究人才。

According to the positioning of Shanghai city and the demand for food science talents at home and abroad, we aim to cultivate practical research talents with high starting point, solid foundation, strong foreign language and information technology.

四、培养方式及学习年限 Training Mode and Study Duration

硕士生基本学习年限一般为2.5年，最短学习年限一般不少于2年，最长可延长1学年。

采用全日制学习方式。由课程学习、科学研究、学位论文研究三个主要环节组成。

硕士研究生的日常培养工作实行导师负责和导师组培养相结合的办法。导师与导师组在新生入学后2周内指导硕士研究生制定切实可行的培养计划。在培养期间，硕士研究生完成培养方案规定的课程学习、科学研究、专业实践和论文撰写等工作。采取校内课程学习和校外实践研究相结合的学习方式，课程学习实行学分制，科学技术研究累计不少于12个月，学位论文实行导师负责制。

The basic study duration of the Master degree programs normally is 2.5 years. In general, the study duration of Master students should be no less than 2 years. And the study duration can be extended 1 year to the maximum.

font-size: 14px;">The program curriculum for professional master degree program should follow the requirements of the corresponding Steering Committee for Professional Degree Education and the regulations of the University.

五、课程学习要求 Course Requirement

课程类别 Course Type	学分要求 Min Credits	GPA 学分要求 Min GPA Credit	备注 Note
公共基础课 General Fundamental Courses	6	6	
专业基础课 Program Core Courses	0		
专业前沿课 Program Frontier Courses	0		
专业选修课 Program Elective Courses	0		

六、培养过程要求 Training Requirement

1、硕士开题报告

1) 硕士生学位论文开题在第二学年第一学期结束前完成。

2) 基本完成培养计划中规定的课程学习并成绩合格，GPA满足培养方案要求。

3) 专家小组至少由3名相关学科具有硕士研究生指导资格的专家对开题报告进行论证。

!--[if !supportLists]--4 首次学位论文开题未通过的，可在下一学期再次申请开题；两次论文开题均未通过的，由开题报告专家组作出应予退学处理建议。span

1. Thesis proposal of master student

The master degree thesis proposal should generally be carried out before the end of the first semester of the second academic year. The students shall complete all the courses as specified in the training plan and pass the exams, the GPA should meet the requirement of program curriculum. The committee of at least three master supervised experts in the related discipline should evaluate the thesis proposal reports. The students who failed to pass the evaluation at the first time could apply for a second chance. The committee should give a suggestion of drop out of schooling to whom failed at the re-assessment.

2. Mid-term assessment of master student

The students shall complete all the courses as specified in the training plan and pass the exams, the GPA should be no less than 2.7. And also the students have passed thesis proposal assessment.

Mid-term assessment should be completed at least 3-month in advance of thesis review. The assessment shall include a review of course completion, the progress of the thesis, personal progress summary, evaluation by the supervisor, and an oral presentation to the assessment committee.

A Mid-term assessment committee of at least three master supervised experts should organize a defense assessment of student's mid-term report. The results of the assessment shall be marked as passed/failed.

The master student whose mid-term assessment failed to pass shall be warned, and be requested to submit a corrective action report. Those who have improved their mid-term reports can participate in a re-assessment in the next semester. The committee should give a suggestion of drop out of schooling to whom failed at the re-assessment.

3. Requirement for Practice of the Professional Master Degree Programs

Combination with the characteristics of the discipline of food science and technology, the practice bases inside and outside University should be established by taking complementary advantages of both school and enterprise. A stable, rich-experienced practical teaching team should be developed to ensure that the professional practice can be carried out in a planned and standard way. The training of the professional master students is encouraged to be co-supervised by two supervisors, one inside and the other outside the University. The internal supervisor takes the major responsibility, while the external supervisor will participate in supervising the practice, project research, thesis, and other works. The delivering of the professional master degree courses shall enhance the application of diversified teaching methods, such as case study, on-site practice, and training simulations, highlighting the training of practical research and technological innovation abilities, and strengthening the assessment of their abilities to apply their knowledge to solve real-life problems. During their course of study, the professional master students shall have no less than six months of professional practice. The professional practice will account for credit as a course.

七、学术成果要求 Requirement on Academic Achievements

专业硕士研究生应从事与食品

学科培养目标相符的科学研究，并取得一定的创新性成果，达到国内一流学科硕士学术水平。鼓励学硕发表高水平学术论文，毕业要求遵照上海交通大学和农业与生物学院的规定。答辩之前，学位论文需通过同行评审。

Master student should achieve the first-class discipline master academic level in China, and academic achievements should be in accordance with the graduation requirements of Shanghai Jiao Tong University and the School of Agriculture and Biology. Master student should be engaged in scientific research corresponding to the training objectives of food discipline, and achieve certain innovative results. Master student are encouraged to publish high-level academic papers. Before applying for defense, dissertation must pass peer review.

八、学位论文 Thesis/dissertation work

1、选题要求

选题应来源于食品产业的实际需求,是某一区域食品产业或科技型企业发展中急需解决的生产、技术、流通或管理等领域的具体命题。

2、学位论文形式和规范要求

论文形式可以是市场（产业）调研报告、应用技术试验研究食品产业规划设计食品产品开发、产业案例分析、食品应用基础研究等，应避免资料汇总、文献综述等形式。

学位论文写作要求条理清晰、内容具体、结构合理、层次分明、文理通顺、数据真实、统计和分析科学、版式符合国家或学位授予单位的学位论文规范。

3、学位论文水平要求

24.0pt;mso-char-indent-count:2.0">应提交学位论文并完成答辩。具体要求如下:

1)　　学位论文必须根据实践工作与研究内容进行论文写作，要有一定的创新性、先进性、应用性和工作量。具体形式可以是实践报告以及本专业领域相关问题的研究。

1. Requirement for dissertation topic

The topic of master dissertation should be directly from the needs of food industry or related enterprises, such as the scientific or practical problems of production, technology, logistic or management issues.

2. Format and standardization requirements

The dissertation shall comply with the basic format of the dissertation stipulated by the nation and the conferring authority. It could be the following formats, such as, marketing report, applied research, industry design, food product development, food case analysis, basic research for applied food, and should be avoid the summary of conference and literature review.

3.

> Quality requirements

The master degree thesis of food should have a certain academic level, theoretical significance, or practical value. It includes the following aspects:

The dissertation should be based on practical work and research with a certain innovation, advancement, practical value and workload.

The dissertation should be scientific and integrative to solve practical food issues.

九、课程设置 Courses

详见下页 Please refer to the next page.

撰稿人签字：　　日 期：

校稿人签字：　　日 期：

审核人签字：　　日 期：

主管院长签字：　　院系公章　　日期：

课程类别 Category	课程代码 Course Code	课程名称 Course Name		学分 Credit	授课语言 Language	开课学期 Semester	是否必修 Compusory	可以计算GPA	必须计算GPA	备注 Note	多选组 Course Group
		中文Chinese	English 英文								
公共基础课 General Fundamental Courses	FL6001	学术英语	English for Academic Purposes	2	英文	秋季	是	是	是		
	MARX6001	新时代中国特色社会主义理论与实践	Theory and Practice of Socialism with Chinese Characteristics in the New Era	2	中文	春季	是	是	是		
	MARX6003	自然辩证法概论	Introduction to Dialectics of Nature	1	中文	春季	是	是	是		
	GE6001	学术写作、规范与伦理	Scientific Writing, Integrity and Ethics	1	中英并行开班	春秋季	是	是	是		
专业基础课 Program Core Courses	STAT6001	基础数理统计	Fundamental Mathematical Statistics	3	中文	春秋季	是	是	是		最少1门、最低3分
	STAT6002	生物数学（I）	Biology Mathematics I	3	中文	春秋季	是	是	是		最少1门、最低3分
	FOST6005	食品工程与加工高新技术	Food Engineering and Processing High and New Technology	2	中文	秋季	否	是	否		
	FOST6007	高级食品化学	Advanced Food Chemistry	2	中文	秋季	否	是	否		
	FOST8008	食品生物技术进展	Progress on Food Biotechnology	2	中文	秋季	否	是	否		
	GE6003	实验室安全教育	Laboratory Safety Education	0.5	中文	秋季	是	否	否		
	FOST6008	食品工程综合实践	Combined Training in Food Engineering	3	中文	春季	否	是	否		
	GE8001	专业实践	Professional Practice	1	中文	春秋季	是	否	否		
专业前沿课 Program Frontier Courses	FOST6002	食品感官评价与风味化学	Food Sensory Evaluation and Flavor Chemistry	2	英文	秋季	否	是	否		
	FOST8002	食品发酵工艺学专题	Food Fermentation Technology	2	中文	秋季	否	是	否		
	FOST8005	现代食品毒理学与风险评估	Modern Food Toxicology and Risk Assessment	2	中文	秋季	否	是	否		
	FOST8006	现代食品保藏技术	Modern Technology on Food Preservation	2	中文	秋季	否	是	否		
	FOST8009	食品微生物学研究进展	Advances in Food Microbiology	2	中文	秋季	否	是	否		
	FOST8015	食品工业现代装备	Modern Food Industry Equipment	2	中文	秋季	否	是	否		
	FOST8018	农产品深加工与综合利用	Deep Processing and Comprehensive Utilization of Agricultural Products	2	中文	秋季	否	是	否		
	FOST8010	食品分离技术	Food Separation Technique	2	中文	春季	否	是	否		
	FOST8011	食品质量安全检测技术	Food Quality and Safety Detection Technology	2	英文	春季	否	是	否		
	FOST8012	食品质构与流变学	Food Texture and Rheolojy	2	中文	春季	否	是	否		
	FOST8019	食品香味科学前沿	Frontiers of Food Flavor Science	2	中文	春季	否	是	否		
	GE6012	学术报告与研讨会	Academic Seminars	2	中文	春季	是	否	否		

食品科学与工程(083200)全日制硕士培养方案（学硕）

Food Science and Engineering

一、基本信息 Basic Information

院系名称 School	(150)农业与生物学院 School of Agriculture & Biology			适用年级 Grade	2024
适用专业 Major	食品科学与工程(083200) Food Science and Engineering				
项目类型 Program Type	全日制硕士				
最低学分 Min Credit	30	最低GPA学分 Min GPA Credit	18	最低GPA Min GPA	2.7

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课程类别 Course Type	学分要求 Min Credits	GPA 学分要求 Min GPA Credit	备注 Note
公共基础课 General Fundamental Courses	6	6	
专业基础课 Program Core Courses	9		
专业前沿课 Program Frontier Courses	0		
专业选修课 Program Elective Courses	0		

六、培养过程要求 Training Requirement

1、硕士开题报告

1) 硕士生学位论文开题在第二学年第一学期结束前完成。

2) 基本完成培养计划中规定的课程学习并成绩合格，GPA满足培养方案要求。

3) 专家小组至少由3名相关学科具有硕士研究生指导资格的专家对开题报告进行论证。

4) 首次学位论文开题未通过的，可在下一学期再次申请开题；两次论文开题均未通过的，由开题报告专家组作出应予退学处理建议。

2、硕士生中期检查

1) 完成培养计划中规定的全部课程学习并成绩合格；GPA不低于2.7；学位论文开题已通过。

2) 中期检查应在学位论文送审前3个月进行，主要内容包括：研究生课程学习完成情况、论文工作进展情况、个人总结、导师评价以及考核小组面试评审等。

3) 专家小组由3名以上相关学科具有硕士研究生指导资格的专家组成的专家组对学生报告进行答辩评审。中期检查的结果按“通过”或“不通过”记载。

4) 中期检查不通过的硕士研究生，应给予警告，并要求其给出改进措施，上报给所在院系。经整改可于下一学期再次进行中期检查，2次中期检查不通过者，由专家组作出应予退学处理建议。

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The master degree thesis proposal should generally be carried out before the end of the first semester of the second academic year. The students shall complete all the courses as specified in the training plan and pass the exams, the GPA should meet the requirement of program curriculum. The committee of at least three master supervised experts in the related discipline should evaluate the thesis proposal reports. The students who failed to pass the evaluation at the first time could apply for a second chance. The committee should give a suggestion of drop out of schooling to whom failed at the re-assessment.

2. Mid-term assessment of master student

The students shall complete all the courses as specified in the training plan and pass the exams, the GPA should be no less than 2.7. And also the students have passed thesis proposal assessment.

Mid-term assessment should be completed at least 3-month in advance of thesis review. The assessment shall include a review of course completion, the progress of the thesis, personal progress summary, evaluation by the supervisor, and an oral presentation to the assessment committee.

A Mid-term assessment committee of at least three master supervised experts should organize a defense assessment of student's mid-term report. The results of the assessment shall be marked as passed/failed.

The master student whose mid-term assessment failed to pass shall be warned, and be requested to submit a corrective action report. Those who have improved their mid-term reports can participate in a re-assessment in the next semester. The committee should give a suggestion of drop out of schooling to whom failed at the re-assessment.

七、学术成果要求 Requirement on Academic Achievements

硕士研究生应从事与食品学科培养目标相符的科学研究，并取得一定的创新性成果，达到国内一流学科硕士学术水平。鼓励学硕发表高水平学术论文，毕业要求遵照上海交通大学和农业与生物学院的规定。答辩之前，学位论文需通过同行评审。

Master student should achieve the first-class discipline master academic level in China, and academic achievements should be in accordance with the graduation requirements of Shanghai Jiao Tong University and the School of Agriculture and Biology. Master student should be engaged in scientific research corresponding to the training objectives of food discipline, and achieve certain innovative results. Master student are encouraged to publish high-level academic papers. Before applying for defense, dissertation must pass peer review.

八、学位论文 Thesis/dissertation work

1、选题要求

选题应来源于食品产业的实际需求，是某一区域食品产业或科技型企业发展中急需解决的生产、技术、流通或管理等领域的具体命题。

2、学位论文形式和规范要求

论文形式可以是市场（产业）调研报告、应用技术试验研究食品产业规划设计食品产品开发、产业案例分析、食品应用基础研究等，应避免资料汇总、文献综述等形式。

学位论文写作要求条理清晰、内容具体、结构合理、层次分明、文理通顺、数据真实、统计和分析科学、版式符合国家或学位授予单位的学位论文规范。

3、学位论文水平要求

应提交学位论文并完成答辩。具体要求如下:

1) 学位论文必须根据实践工作与研究内容进行论文写作，要有一定的创新性、先进性、应用性和工作量。具体形式可以是实践报告以及本专业领域相关问题的研究。

2) 论文能体现作者综合运用食品科学理论、方法和技术手段解决食品生产实际问题的能力。

3) 论文应以中文撰写，正文一般不少于1.5万字。

4、硕士论文送审

学位论文评审一般于答辩前一个半月进行，学位论文的派送、评审意见与结果的回收汇总和反馈，由所属学科指定答辩秘书负责，论文作者不得参与。

5、硕士学位论文答辩

1) 通过论文评审并按评审专家意见修改、完善，经导师审核定稿，且达到学院规定的科研成果要求者，向所在学科提出答辩申请，经导师、学科、学院审核后举行学位论文答辩会。学位论文答辩应在学校规定或批准的最长年限内完成，逾期不再受理。

2) 学科聘请3或5名高级职称以上（含具有硕士生培养资格的高级职称专家）职称的同行专家组成答辩委员会（同等学力申请硕士学位必须由5名同行专家组成答辩委员会，其中1名为申请者所在单位以外的校外专家）。答辩委员会主席由教授级专家担任。研究生本人的导师不得作为答辩委员会委员。

3) 学位论文答辩会应遵循“坚持标准、保证质量、公正合理”的原则按学校相关政策执行。

4) 答辩结论以答辩委员会无记名投票结果决定。得票数超过答辩委员会成员2/3者，为答辩通过，建议授予硕士学位并提请所属学科及学院学位评定委员会审核。得票数未超过答辩委员会成员2/3者，为答辩未通过。答辩未通过者，可在一年内（不超过规定的最长学习年限）修改论文，重新答辩一次。

1. Requirement for dissertation topic

The topic of master dissertation should be directly from the needs of food industry or related enterprises, such as the scientific or practical problems of production, technology, logistic or management issues.

2. Format and standardization requirements

The dissertation shall comply with the basic format of the dissertation stipulated by the nation and the conferring authority. It could be the following formats, such as, marketing report, applied research, industry design, food product development, food case analysis, basic research for applied food, and should be avoid the summary of conference and literature review.

mso-para-margin-bottom:.0001pt;text-indent:-21.0pt;mso-char-indent-count:0; mso-list:l0 level1 lfo1">3. Quality requirements

The master degree thesis of food should have a certain academic level, theoretical significance, or practical value. It includes the following aspects:

The dissertation should be based on practical work and research with a certain innovation, advancement, practical value and workload.

九、课程设置 Courses

详见下页 Please refer to the next page.

撰稿人签字： 日 期：

校稿人签字： 日 期：

审核人签字： 日 期：

主管院长签字： 院系公章 日期：

课程类别 Category	课程代码 Course Code	课程名称 Course Name		学分 Credit	授课语言 Language	开课学期 Semester	是否必修 Compusory	可以计算GPA	必须计算GPA	备注 Note	多选组 Course Group
		中文Chinese	English 英文								
公共基础课 General Fundamental Courses	FL6001	学术英语	English for Academic Purposes	2	英文	秋季	是	是	是		
	MARX6001	新时代中国特色社会主义理论与实践	Theory and Practice of Socialism with Chinese Characteristics in the New Era	2	中文	春季	是	是	是		
	MARX6003	自然辩证法概论	Introduction to Dialectics of Nature	1	中文	春季	是	是	是		
	GE6001	学术写作、规范与伦理	Scientific Writing, Integrity and Ethics	1	中英并行开班	春秋季	是	是	是		
专业基础课 Program Core Courses	STAT6001	基础数理统计	Fundamental Mathematical Statistics	3	中文	春秋季	是	是	是		最少1门、最低3分
	STAT6002	生物数学（I）	Biology Mathematics I	3	中文	春秋季	是	是	是		最少1门、最低3分
	FOST6005	食品工程与加工高新技术	Food Engineering and Processing High and New Technology	2	中文	秋季	否	是	否		
	FOST6007	高级食品化学	Advanced Food Chemistry	2	中文	秋季	否	是	否		
	FOST8008	食品生物技术进展	Progress on Food Biotechnology	2	中文	秋季	否	是	否		
	GE6003	实验室安全教育	Laboratory Safety Education	0.5	中文	秋季	是	否	否		
专业前沿课 Program Frontier Courses	FOST6002	食品感官评价与风味化学	Food Sensory Evaluation and Flavor Chemistry	2	英文	秋季	否	是	否		
	FOST6003	分子营养与功能性食品	Molecular Nutrition and Functional Food	2	英文	秋季	否	是	否		
	FOST8002	食品发酵工艺学专题	Food Fermentation Technology	2	中文	秋季	否	是	否		
	FOST8003	现代食品分析方法进展	Advances in Modern Methods of Food Analysis	2	中文	秋季	否	是	否		
	FOST8005	现代食品毒理学与风险评估	Modern Food Toxicology and Risk Assessment	2	中文	秋季	否	是	否		
	FOST8009	食品微生物学研究进展	Advances in Food Microbiology	2	中文	秋季	否	是	否		
	FOST8018	农产品深加工与综合利用	Deep Processing and Comprehensive Utilization of Agricultural Products	2	中文	秋季	否	是	否		
	FOST8004	食品安全现代控制体系	Modern Control System for Food Safety	2	英文	春季	否	是	否		
	FOST8007	食品新资源开发及利用	Development and Utilization of Novel Food Resources	2	中文	春季	否	是	否		
	FOST8010	食品分离技术	Food Separation Technique	2	中文	春季	否	是	否		
	FOST8019	食品香味科学前沿	Frontiers of Food Flavor Science	2	中文	春季	否	是	否		
	GE6012	学术报告与研讨会	Academic Seminars	2	中文	春季	是	否	否		

兽医(095200)全日制硕士培养方案（崇明专项）

Veterinary Medicine

一、基本信息 Basic Information

院 系 名 称 School	(150)农业与生物学院 School of Agriculture & Biology			适 用 年 级 Grade	2024
适 用 专 业 Major	兽医(095200) Veterinary Medicine				
项 目 类 型 Program Type	全日制硕士				
最 低 学 分 Min Credit	30	最低GPA学分 Min GPA Credit	18	最低GPA Min GPA	2.7

二、学科简介 Introduction

兽医专业学位研究生教育在上海交通大学人才培养体系中具有重要的战略地位，“兽医传染病”与“预防兽医学”是上海市重点学科，建有上海市兽医生物技术重点实验室，2000年设立“预防兽医学”二级学科硕士点，2013年开始招收、培养全日制兽医硕士专业学位研究生，该学科建立了以培养实践能力为核心的兽医专业学位研究生教育体系，形成了卓越的兽医专业学位研究生教育文化，努力培养具有更好兽医专业素养、更强专业能力、更宽专业知识的高层次应用型人才，不断满足和适应国家经济建设和社会发展对兽医专业人才的新需求。

近5年来，本学科系先后承担了国家级科研项目21 项、省部级及横向科研项目60项，开展了动物基因组学与分子育种、统计基因组学与生物信息学、繁殖生物技术、营养与免疫、营养与自由基生物学、抗体工程、病原检测技术、传染病防治等领域的研究工作，并在统计基因组学、实验小型猪模型、人兽共患病防治等方面形成了特色。自2011 以来，交通大学动植物学科在ESI排名中一直位列全球前1%。

本项目为上海交通大学农业与生物学院与耶路撒冷希伯来大学联合培养项目，上海交通大学授予的“兽医”硕士学位/耶路撒冷希伯来大学授予的“Animal and Veterinary Sciences”硕士学位。

耶路撒冷希伯来大学建于1913年，是以色列第二古老的大学，是以色列排名第一的综合性高等学府。目前设有文学院、社会科学院、理学院、农学院、医学系科、牙医学院和法学院等院系。2022年软科世界大学学术排名中希伯来大学全球排名第77位，以色列排名第1位。动物科学专业在国际排名领先，拥有世界知名农学和动物科学领域的专家，与产业连接紧密，在农业领域有很强的国际影响力。

The veterinary professional education has an important strategic position in the graduate training system of Shanghai Jiao Tong University. Veterinary Infectious Diseases and Preventive Veterinary Medicine are key disciplines in Shanghai, and with support of Shanghai Key Laboratory of Veterinary Biotechnology. The discipline of Preventive Veterinary Medicine was established in 2000, and began to recruit and train full-time veterinary master's degree students from 2013. This discipline established a veterinary professional education system with the goal of training practical ability. The education program is aiming to cultivate high-level applied talents with better veterinary professional literacy, stronger professional ability, and wider professional knowledge, which meets the new demands of veterinary professionals for national economic construction and social development. In the recent 5 years, the discipline of Veterinary Medicine have coordinated and involved in 21 national research projects, 60 provincial and horizontal research projects, and focused on researches of animal genomics and molecular breeding, statistic genomics and bioinformatics, reproductive biotechnology, nutrition and immunity, nutrition and free radical biology, antibody engineering, pathogen detection technology, and the prevention and treatment of infectious diseases. Studies on statistical genetics, mini-pig experimental model, and prevention and treatment of zoonosis have become the specialty of the programme. Since 2011, the animal and plant discipline of Jiaotong University has been ranked in the top 1% of the world in the ESI ranking. This program is the joint training program of the School of Agriculture and Biology of Shanghai Jiao Tong University and the Hebrew University of Jerusalem, and the master of degree of "Veterinary Medicine" from Shanghai Jiao Tong University / "Animal and Veterinary Sciences" from the Hebrew University of Jerusalem.

The Hebrew University of Jerusalem, founded in 1913, is the second oldest university in Israel. It is the No. 1 comprehensive institution of higher learning in Israel and is known as the "Harvard of the Middle East". At present, there are schools of Arts, Academy of Social Sciences, School of Science, School of Agriculture, Department of Medicine, School of Dentistry and School of Law. In the 2022 Soft Science World University Academic Rankings, Hebrew University was ranked 77th in the world, and Israel was ranked first. Animal science major leads in the international ranking, and has world-renowned experts in the field of agriculture and animal science. It is closely connected with the industry, and has a strong international influence in the field of agriculture.

三、培养目标 Program Objective

1、较好地掌握专业领域的理论基础和专门知识，具备较宽广的相关学科知识，熟悉国家的相关政策和法规。能够较熟练地阅读专业领域的外文资料。熟悉我国兽医事业的现状，了解国际兽医行业的发展动态和趋势。
2、有较强的运用现代科学技术和理论知识解决实际问题的能力，有较强的组织管理和业务实施能力。
3、能够胜任执业兽医师或官方兽医工作。能独立担负兽医科技服务、技术监督、管理与开发、项目规划与实施等工作。

1. Master the theoretical basis and expertise in the professional field, have a broad knowledge of relevant disciplines, be familiar with the relevant policies and regulations of the country. Be fluent in reading foreign language materials in the field of expertise. Understand the current situation of the local veterinary industry and be familiar with the development and trend of the international veterinary industry.
2. Have a strong ability of using modern technology and scientific knowledge to solve practical problems, have a strong management and professional implementation capacity.
3. Be competent to fill practicing veterinarian or veterinary governing work. Be able to independently undertake veterinary

四、培养方式及学习年限 Training Mode and Study Duration

1、学习年限：一般为2.5年，最短学习年限一般不少于2年，最长可延长1学年。
2、学习方式：采用全日制学习方式。由课程学习、专业实践、学位论文研究三个主要环节组成。
3、培养方式：采取课程学习和实践相结合的学习方式，第一学年在上海交大完成课程修读及参与实践教学。赴希伯来大学学习的学生，需提前提出申请，希伯来大学将对申请者进行选拔，达到外方注册要求的学生（如雅思成绩达到6分或托福成绩达到80分级以上，以及其他外方的要求），将根据外方安排前往耶路撒冷希伯来大学，进行至少一个学期（不含小学期）的课题研究和实践。学位论文要求同时使用中文和英文两种语言书写。达到双方院校学位授予要求的学生，将获得上海交通大学和希伯来大学分别颁发的学位证书。

1. Study period: The study duration for a Master's degree normally is 2.5-year. The shortest study period is 2-year. Students who can't complete their program can apply for an extension of study duration, up to 1 year.
2. Learning mode: full-time study is required. Students should complete training process including course learning, professional practice, scientific research.
3. Cultivation mode: The training program for a Master's degree includes course learning and practice activities. Students shall complete all credit courses within the first academic year at Shanghai Jiao Tong University. Students should submit a Hebrew University semester registration application in advance. Students who meet foreign student's registration requirements of Hebrew University (such as IELTS score of 6 or TOEFL score of 80 at least, as well as other requirements) will go to Hebrew University of Jerusalem according to the Hebrew University schedule.Students should conduct research and practice activity for at least one semester (excluding summer semester) on the Hebrew University campus. The Master Degree Dissertation is required to be written in both Chinese and English. Students who meet the degree awarding requirements of both universities will achieve certificates from Shanghai Jiao Tong University and Hebrew University respectively.

五、课程学习要求 Course Requirement

课程类别 Course Type	学分要求 Min Credits	GPA 学分要求 Min GPA Credit	备注 Note
公共基础课 General Fundamental Courses	6	6	
专业基础课 Program Core Courses	0		
专业前沿课 Program Frontier Courses	0		
专业选修课 Program Elective Courses	0		

六、培养过程要求 Training Requirement

1、硕士生开题报告 Thesis proposal of master student
硕士生学位论文开题在第二学年第一学期结束前完成。
基本完成培养计划中规定的课程学习并成绩合格，GPA满足培养方案要求。
专家小组至少由3名相关学科具有硕士研究生指导资格的专家对开题报告进行论证。
首次学位论文开题未通过的，可在下一学期再次申请开题；两次论文开题均未通过的，由开题报告专家组作出应予退学处理建议。
2、硕士生中期检查 Mid-term assessment of master student
完成培养计划中规定的全部课程学习并成绩合格；GPA不低于2.7；学位论文开题已通过。
中期检查应在学位论文送审前3个月进行，主要内容包括：研究生课程学习完成情况、论文工作进展情况、个人总结、导师评价以及考核小组面试评审等。
专家小组由3名以上相关学科具有硕士研究生指导资格的专家组成的专家组对学生报告进行答辩评审。中期检查的结果按“通过”或“不通过”记载。
中期检查不通过的硕士研究生，应给予警告，并要求其给出改进措施，上报给所在院系。经整改可于下一学期再次进行中期检查，2次中期检查不通过者，由专家组作出应予退学处理建议。
3、专业实践要求Requirement on Professional Practice
结合本学科特色，利用校企优势互补，共建校内、校外实践基地；建设、配备一支数量稳定、实践经验丰富的实践教学师资队伍，保障专业实践按计划、规范化开展。
专业学位硕士研究生的培养实行校内外双导师共同指导的方式，以校内导师指导为主，校外导师参与实践过程、项目研究和论文等多个环节的指导工作。
专业学位硕士研究生的课程教学要加强案例教学、实践（现场）教学、模拟训练等教学方法的运用，突出专业学位硕士研究生实践研究和技术创新能力的培养，强化对专业学位硕士研究生运用所学基本知识和技能解决实际问题的能力和水平的考核。
专硕在学期间，必须保证不少于半年的专业实践教学，获取专业实践课程的学分。

1、硕士生开题报告 Thesis proposal of master student
The master degree thesis proposal should generally be carried out before the end of the first semester of the second academic year. The students shall complete all the courses as specified in the training plan and pass the exams, the GPA should meet the requirement of program curriculum. The committee of at least three master supervised experts in the related discipline should evaluate the thesis proposal reports. The students who failed to pass the evaluation at the first time could apply for a second chance. The committee should give a suggestion of drop out of schooling to whom failed at the re-assessment.
2、硕士生中期检查 Mid-term assessment of master student
The students shall complete all the courses as specified in the training plan and pass the exams, the GPA should be no less than 2.7. And also the students have passed thesis proposal assessment.
Mid-term assessment should be completed at least 3-month in advance of thesis review. The assessment shall include a review of course completion, the progress of the thesis, personal progress summary, evaluation by the supervisor, and an oral presentation

assessment committee of at least three master supervised experts should organize a defense assessment of student's mid-term report. The results of the assessment shall be marked as passed/failed.
The master student whose mid-term assessment failed to pass shall be warned, and be requested to submit a corrective action report. Those who have improved their mid-term reports can participate in a re-assessment in the next semester. The committee should give a suggestion of drop out of schooling to whom failed at the re-assessment.

3、专业实践要求Requirement on Professional Practice

Combination with the characteristics of the discipline, the practice bases inside and outside University should be established by taking complementary advantages of both school and enterprise. A stable, rich-experienced practical teaching team should be developed to ensure that the professional practice can be carried out in a planned and standard way.
The training of the professional master students is encouraged to be co-supervised by two supervisors, one inside and the other outside the University. The internal supervisor takes the major responsibility, while the external supervisor will participate in supervising the practice, project research, thesis, and other works.
The delivering of the professional master degree courses shall enhance the application of diversified teaching methods, such as case study, on-site practice, and training simulations, highlighting the training of practical research and technological innovation abilities, and strengthening the assessment of their abilities to apply their knowledge to solve real-life problems.
During their course of study, the professional master students shall have no less than six months of professional practice. The professional practice will account for credit as a course.

七、学术成果要求 Requirement on Academic Achievements

兽医专业硕士研究生应从事与兽医学科培养目标相应的科学研究，达到国内一流学科硕士学术水平。鼓励取得创新性成果和技术发明等，毕业要求遵照上海交通大学和农业与生物学院的规定。答辩之前，学位论文需进行同行评审。
学位论文实行导师负责制，由具有实践经验和高级专业技术职称的校内外导师联合指导。硕士研究生在规定的学习年限内完成培养计划，课程成绩合格并达到规定的总学分和绩点要求；满足双方院校要求，且通过硕士学位论文评审及答辩，无学术诚信问题者，可授予双方硕士学位。学生获得希伯来大学学位与其在本国颁发学位一致，并为以色列政府所承认。
学生完成一篇学位论文，论文应制作中文、英文两个版本。

Master student should achieve the first-class discipline master academic level in China, and academic achievements should be in accordance with the graduation requirements of Shanghai Jiao Tong University and the School of Agriculture and Biology. Master student should be engaged in scientific research corresponding to the training objectives of Veterinary Medicine discipline, and achieve certain innovative results. Master student are encouraged to apply for patent. Before applying for defense, dissertation should be sampled and pass peer review.

who complete the training plan within the prescribed period of study, pass the course performance and meet the specified total credit and gPA requirements; meet the requirements of both universities and pass the dissertation evaluation and defense without academic integrity problems can be awarded a master's degree. Students receive a degree from Hebrew University in line with the degree awarded in their country and is recognized by the Israeli government.

The Master Degree Dissertation is required to be written in both Chinese and English.

八、学位论文 Thesis/dissertation work

1、学位论文的选题、内容、形式上的要求Topic selection, contents and formal requirements of the doctoral dissertation

尝试开展“学位论文 调研报告 病例分析”的综合评价模式。

学位论文要求具有科学意义或应用价值，内容具有新颖性。要求论文设计合理、技术路线可行、数据准确可信、讨论深入、结论正确。要求论文撰写规范、层次清晰、文字流畅。在第四学期中期由学科负责人组成检查组对论文进行的情况作一次中期检查。调研报告和病例分析可参照学位论文要求执行。

2、论文送审、答辩的要求与时间节点The requirements and Time node of Dissertation Review and Defense

（1）硕士论文送审Dissertation Review for Master's Degree Application

学位论文评审一般于答辩前一个半月进行，学位论文的派送、评审意见与结果的回收汇总和反馈，由所属学科指定答辩秘书负责，论文作者不得参与。

（2）硕士学位论文答辩 Dissertation Defense of Master student

通过论文评审并按评审专家意见修改、完善，经导师审核定稿，且达到学院规定的科研成果要求者，向所在学科提出答辩申请，经导师、学科、学院审核后举行学位论文答辩会。学位论文答辩应在学校规定或批准的最长年限内完成，逾期不再受理。

所在硕士专业学位点聘请3或5名高级职称以上（含具有硕士生培养资格的高级职称专家）的同行专家组成答辩委员会，其中需有1至2名具有相关行业实践经验的校外专家。答辩委员会主席由教授级专家担任。研究生本人的导师不得作为答辩委员会委员。

学位论文答辩会应遵循“坚持标准、保证质量、公正合理”的原则按学校相关政策执行。

答辩结论以答辩委员会无记名投票结果决定。得票数超过答辩委员会成员2/3者，为答辩通过，建议授予硕士学位并提请所属学科及学院学位评定委员会审核。得票数未超过答辩委员会成员2/3者，为答辩未通过。答辩未通过者，可在一年内（不超过规定的最长学习年限）修改论文，重新答辩一次。

1、学位论文的选题、内容、形式上的要求Topic selection, contents and formal requirements of the doctoral dissertation

A comprehensive evaluation will be carried out, including evaluation of dissertation, research report and case analysis.The dissertation requires scientific significance or application value. The research of dissertation requires novelty, reasonable design, clear technical route, accurate and credible data, fluent and standard writing, and in-depth discussion. In the middle of the fourth semester, the director of discipline will perform a mid-term examination of the dissertation. The research report and case analysis can be carried out in accordance with the requirements of the dissertation.

2、论文送审、答辩的要求与时间节点The requirements and Time node of Dissertation Review and Defense

（1）硕士论文送审Dissertation Review for Master's Degree Application

Dissertation review shall be conducted one and a half months before the dissertation defense. The Dissertation secretary, designated by the student's School, shall be responsible for the delivery of dissertation as well as collection and feedback of review comments and results, while the author of the dissertation shall not participate in the process.

（2）硕士学位论文答辩 Dissertation Defense of Master student

After the dissertation has been reviewed, revised and improved according to the comments/suggestions from the reviewers, and finalized after approval by the supervisor, the master students who have satisfy the publication requirements as prescribed by the School may apply for the oral defense. He/she shall submit a defense application to the discipline, which should be approved by the supervisor, the discipline and the School. Thesis defense shall be completed within the maximum study duration, and shall not be accepted beyond the time limit.

The professional degree authorized unit shall invite 3 or 5 peer experts with senior professional titles or above (with the qualification of Master's student training) to set up the dissertation defense committee, of which shall include 1 to 2 experts from outside University/institution who have rich practical experience in related industry. The defense committee must be assumed by a professor-level expert. The supervisor of the master student may not serve as a member of the committee.

The dissertation defense shall follow the principles of "upholding the standards, ensuring the quality, and being just and reasonable", and shall be executed according to related regulations.

The final conclusion of the dissertation defense shall be drawn from the secret ballot of the defense committee. If the number of affirmative votes exceeds 2/3 of the number of the committee members, the defense is seen as passed. The master student is recommended for the conferral of a Master's degree, which shall be submitted to the Academic Degree Evaluation Committee of the School for approval. If the number of affirmative votes is less than 2/3 of the number of the committee members, the defense will be seen as failed. For those who fail the dissertation defense, he/she may revise the thesis within 1 year (not exceeding the maximum allowed study duration) and then apply for dissertation review and defense.

九、课程设置 Courses

详见下页 Please refer to the next page.

撰稿人签字：　　日 期：

校稿人签字：　　日 期：

审核人签字：　　日 期：

主管院长签字：　　院系公章　　日期：

课程类别 Category	课程代码 Course Code	课程名称 Course Name		学分 Credit	授课语言 Language	开课学期 Semester	是否必修 Compusory	可以计算GPA	必须计算GPA	备注 Note	多选组 Course Group
		中文Chinese	English 英文								
公共基础课 General Fundamental Courses	FL6001	学术英语	English for Academic Purposes	2	英文	秋季	是	是	是		
	MARX6001	新时代中国特色社会主义理论与实践	Theory and Practice of Socialism with Chinese Characteristics in the New Era	2	中文	春季	是	是	是		
	MARX6003	自然辩证法概论	Introduction to Dialectics of Nature	1	中文	春季	是	是	是		
	GE6001	学术写作、规范与伦理	Scientific Writing, Integrity and Ethics	1	中英并行开班	春秋季	是	是	是		
专业基础课 Program Core Courses	STAT6001	基础数理统计	Fundamental Mathematical Statistics	3	中文	春秋季	是	是	是		最少1门、最低3分
	STAT6002	生物数学（I）	Biology Mathematics I	3	中文	春秋季	是	是	是		最少1门、最低3分
	ASCI6003	细胞生物学	Cell Biology	3	中文	秋季	否	是	否		
	ASCI7007	动物分子病原学	Animal Molecular Pathogenesis	2	中文	秋季	否	是	否		
	GE6003	实验室安全教育	Laboratory Safety Education	0.5	中文	秋季	是	否	否		
	PVET6003	兽医分子细菌学	Veterinary Molecular Bacteriology	2	中文	秋季	否	是	否		
	PVET6004	兽医分子流行病学	Veterinary Molecular Epidemiology	2	中文	秋季	否	是	否		
	PVET6011	细菌分子流行病学	Bacterial Molecular Epidemiology	2	英文	秋季	否	是	否	只能在希伯来大学校区选课修读	
	PVET6001	兽医分子免疫学	Veterinary Molecular Immunology	2	中文	春季	否	是	否		
	PVET6005	临床免疫学	Clinical Immunology	2	英文	春季	是	是	是	希伯来大学授课	
	PVET6007	表观遗传学概论	Topic in Epigenetics	2	英文	春季	否	是	否	只能在希伯来大学校区选课修读	
	PVET6008	显微成像基本操作	Basic Workshop in Practical Microscopy	3	英文	春季	否	是	否	只能在希伯来大学校区选课修读	
	PVET6009	微生物的毒性和发病机制	Virulence and Pathogenesis of Micro-organisms	2	英文	春季	否	是	否	只能在希伯来大学校区选课修读	
	PVET6010	动物和人类的肠道微生物组学	The Gut Microbiome of Animals and Humans	2	英文	春季	否	是	否	只能在希伯来大学校区选课修读	
	GE8001	专业实践	Professional Practice	1	中文	春秋季	是	否	否		
	PVET6012	病理学要素	Elements of Pathology	2	英文	夏季	是	是	是	希伯来大学授课	
专业前沿课 Program Frontier Courses	PVET8002	实验动物学与动物实验技术研究进展	Advance in Laboratory Animal Science & Animal Experimental Technology	2	中文	秋季	否	是	否		
	PVET8004	动物疫苗与抗感染制剂研究进展	Advance in Animal Vaccine and Antimicrobials	2	中文	秋季	否	是	否		
	PVET8011	学术交流	Scientific Communication	3	英文	秋季	否	是	否	只能在希伯来大学校区选课修读	
	AGRI8033	高级实验设计与数据分析	Advanced Design of Experiments and Data Analysis	2	英文	春季	是	是	是	希伯来大学授课	

专业前沿课 Program Frontier Courses	PVET8003	预防兽医学临床诊断与防控技术研究进展	Research Progress on Clinical Diagnosis and Prevention Technology of Preventive Veterinary Medicine	2	中文	春季	否	是	否		
	PVET8012	染色体三维结构	The Three Dimensional Nucleome	2	英文	春季	否	是	否	只能在希伯来大学校区选课修读	
	PVET8022	兽医微生物学	Veterinarian Microbiology	2	英文	夏季	是	是	是	希伯来大学授课	
	PVET8023	无脊椎动物和脊椎动物中的化学感受作用	The Role of Chemosensation in Invertebrates and Vertebrates	2	英文	夏季	是	是	是	希伯来大学授课	
专业选修课 Program Elective Courses	PVET8015	瘤胃生理学	Physiology of the Rumen	2	英文	秋季	否	是	否	只能在希伯来大学校区选课修读	
	PVET8016	营养代谢调控	Control of Food Intake Metabolism	2	英文	秋季	否	是	否	只能在希伯来大学校区选课修读	
	PVET8018	神经元回路的功能	Function of Neuronal Circuits	2	英文	秋季	否	是	否	只能在希伯来大学校区选课修读	
	PVET8020	水产养殖选定方面研讨会	Workshop on Selected Aspects of Aquaculture	2	英文	秋季	否	是	否	只能在希伯来大学校区选课修读	
	PVET8006	兽医案例分析与实践	Analysis and Practice of Veterinary Cases	2	中文	春季	否	是	否		
	PVET8013	流式细胞术概述	Introduction to Flow Cytometry	1	英文	春季	否	是	否	只能在希伯来大学校区选课修读	
	PVET8014	流式细胞术实验	Hands on Flow Cytometry	2	英文	春季	否	是	否	只能在希伯来大学校区选课修读	
	PVET8017	反刍动物氮代谢组学	Nitrogen Metabolosm in Rominants	2	英文	春季	否	是	否	只能在希伯来大学校区选课修读	
	PVET8019	农场动物的环境生理学	Environmental Physiology of Farm Animals	2	英文	春季	否	是	否	只能在希伯来大学校区选课修读	
	PVET8021	禽感知生理学	Physiology of Avian Senses	2	英文	春季	否	是	否	只能在希伯来大学校区选课修读	

兽医(095200)全日制硕士培养方案（专硕）

Veterinary Medicine

一、基本信息 Basic Information

院系名称 School	(150)农业与生物学院 School of Agriculture & Biology			适用年级 Grade	2024
适用专业 Major	兽医(095200) Veterinary Medicine				
项目类型 Program Type	全日制硕士				
最低学分 Min Credit	30	最低GPA学分 Min GPA Credit	18	最低GPA Min GPA	2.7

二、学科简介 Introduction

兽医专业学位研究生教育在上海交通大学人才培养体系中具有重要的战略地位，“兽医传染病”与“预防兽医学”是上海市重点学科，建有上海市兽医生物技术重点实验室，2000年设立“预防兽医学”二级学科硕士点，2013年开始招收、培养全日制兽医硕士专业学位研究生，该学科建立了以培养实践能力为核心的兽医专业学位研究生教育体系，形成了卓越的兽医专业学位研究生教育文化，努力培养具有更好兽医专业素养、更强专业能力、更宽专业知识的高层次应用型人才，不断满足和适应国家经济建设和社会发展对兽医专业人才的新需求。

近5年来，本学科系先后承担了国家级科研项目21 项、省部级及横向科研项目60项，开展了动物基因组学与分子育种、统计基因组学与生物信息学、繁殖生物技术、营养与免疫、营养与自由基生物学、抗体工程、病原检测技术、传染病防治等领域的研究工作，并在统计基因组学、实验小型猪模型、人兽共患病防治等方面形成了特色。

2016-2020 年，获得省部级奖5 项；发表251篇国内外学术论文，其中在 Nature Communications、Scientific Reports、Animal Genetics、Nutrition、Journal of Virology 等学术刊物上发表SCI/EI 收录论文 136篇（人均1.3 篇/年），中文核心115篇（人均1.1 篇/年）。国家发明专利授权24项，其中已进行应用、转化的专利3项。获软件著作权5项。自2011 以来，交通大学动植物学科在ESI排名中一直位列全球前1%。

The veterinary professional education has an important strategic position in the graduate training system of Shanghai Jiao Tong University. Veterinary Infectious Diseases and Preventive Veterinary Medicine are key disciplines in Shanghai, and with support of Shanghai Key Laboratory of Veterinary Biotechnology. The discipline of Preventive Veterinary Medicine was established in 2000, and began to recruit and train full-time veterinary master's degree students from 2013. This discipline established a veterinary professional education system with the goal of training practical ability. The education program is aiming to cultivate high-level applied talents with better veterinary professional literacy, stronger professional ability, and wider professional knowledge, which meets the new demands of veterinary professionals for national economic construction and social development.

In the recent 5 years, the discipline of Veterinary Medicine have coordinated and involved in 21 national research projects, 60 provincial and horizontal research projects, and focused on researches of animal genomics and molecular breeding, statistic genomics and bioinformatics, reproductive biotechnology, nutrition and immunity, nutrition and free radical biology, antibody engineering, pathogen detection technology, and the prevention and treatment of infectious diseases. Studies on statistical genetics, mini-pig experimental model, and prevention and treatment of zoonosis have become the specialty of the programme.

From 2016 to 2020, faculties have won 5 provincial and ministerial awards; published 251 domestic and international academic papers, including 136 papers published in SCI/EI academic journals such as Nature Communications, Scientific Reports, Animal Genetics, Nutrition, and Journal of Virology (1.3 paper per person per year), and 115 papers in Chinese Science Ctitation Database (CSCD) (1.1 per person per year). There are 24 national invention patents and 5 software copyrights granted to the fellows in Animal Science, of which 3 national invention have been applied and transformed. Since 2011, the discipline of Animal and Plant Science of Shanghai Jiao Tong University has ranked the top 1% in the world in the ESI ranking.

三、培养目标 Program Objective

1、较好地掌握专业领域的理论基础和专门知识，具备较宽广的相关学科知识，熟悉国家的相关政策和法规。能够较熟练地阅读专业领域的外文资料。熟悉我国兽医事业的现状，了解国际兽医行业的发展动态和趋势。
2、有较强的运用现代科学技术和理论知识解决实际问题的能力，有较强的组织管理和业务实施能力。
3、能够胜任执业兽医师或官方兽医工作。能独立担负兽医科技服务、技术监督、管理与开发、项目规划与实施等工作。

1. Master the theoretical basis and expertise in the professional field, have a broad knowledge of relevant disciplines, be familiar with the relevant policies and regulations of the country. Be fluent in reading foreign language materials in the field of expertise. Understand the current situation of the local veterinary industry and be familiar with the development and trend of the international veterinary industry.
2. Have a strong ability of using modern technology and scientific knowledge to solve practical problems, have a strong management and professional implementation capacity.
3. Be competent to fill practicing veterinarian or veterinary governing work. Be able to independently undertake veterinary technology services, technical supervision, management and development, and project planning and implementation etc.

四、培养方式及学习年限 Training Mode and Study Duration

1、学习年限：一般为2.5年，最短学习年限一般不少于2年，最长可延长1学年。
2、学习方式：采用全日制学习方式。由课程学习、实习实践、学位论文研究三个主要环节组成。
3、培养方式：采取校内课程学习和校外实践研究相结合的学习方式，课程学习实行学分制，实践研究累计不少于6个月。学位论文实行导师负责制，由具有实践经验和高级专业技术职称的校内外导师联合指导。

1. The duration of program is 2.5 years.
2. Full-time training program including course study, internship and dissertation research.
3. The course study is based on a credit system. The internship and dissertation research requires at least 6 months. The dissertation is jointly co-supervised by mentors with senior professional titles and practical experience on and off the campus.

五、课程学习要求 Course Requirement

课程类别 Course Type	学分要求 Min Credits	GPA 学分要求 Min GPA Credit	备注 Note
公共基础课 General Fundamental Courses	6	6	
专业基础课 Program Core Courses	0		
专业前沿课 Program Frontier Courses	0		
专业选修课 Program Elective Courses	0		

六、培养过程要求 Training Requirement

1、硕士生开题报告
硕士生学位论文开题在第二学年第一学期结束前完成。
基本完成培养计划中规定的课程学习并成绩合格，GPA满足培养方案要求。
专家小组至少由3名相关学科具有硕士研究生指导资格的专家对开题报告进行论证。
首次学位论文开题未通过的，可在下一学期再次申请开题；两次论文开题均未通过的，由开题报告专家组作出应予退学处理建议。
2、硕士生中期检查

完成培养计划中规定的全部课程学习并成绩合格；GPA不低于2.7；学位论文开题已通过。
中期检查应在学位论文送审前3个月进行，主要内容包括：研究生课程学习完成情况、论文工作进展情况、个人总结、导师评价以及考核小组面试评审等。
专家小组由3名以上相关学科具有硕士研究生指导资格的专家组成的专家组对学生报告进行答辩评审。中期检查的结果按“通过”或“不通过”记载。
中期检查不通过的硕士研究生，应给予警告，并要求其给出改进措施，上报给所在院系。经整改可于下一学期再次进行中期检查，2次中期检查不通过者，由专家组作出应予退学处理建议。
(3)专业实践要求

结合本学科特色，利用校企优势互补，共建校内、校外实践基地；建设、配备一支数量稳定、实践经验丰富的实践教学师资队伍，保障专业实践按计划、规范化开展。
专业学位硕士研究生的培养实行校内外双导师共同指导的方式，以校内导师指导为主，校外导师参与实践过程、项目研究和论文等多个环节的指导工作。
专业学位硕士研究生的课程教学要加强案例教学、实践（现场）教学、模拟训练等教学方法的运用，突出专业学位硕士研究生实践研究和技术创新能力的培养，强化对专业学位硕士研究生运用所学基本知识和技能解决实际问题的能力和水平的考核。
专硕在学期间，必须保证不少于半年的专业实践教学，获取专业实践课程的学分。

1、Thesis proposal of master student
The master degree thesis proposal should generally be carried out before the end of the first semester of the second academic year. The students shall complete all the courses as specified in the training plan and pass the exams, the GPA should meet the requirement of program curriculum. The committee of at least three master supervised experts in the related discipline should evaluate the thesis proposal reports. The students who failed to pass the evaluation at the first

time could apply for a second chance. The committee should give a suggestion of drop out of schooling to whom failed at the re-assessment.

2、 Mid-term assessment of master student
The students shall complete all the courses as specified in the training plan and pass the exams, the GPA should be no less than 2.7. And also the students have passed thesis proposal assessment.

Mid-term assessment should be completed at least 3-month in advance of thesis review. The assessment shall include a review of course completion, the progress of the thesis, personal progress summary, evaluation by the supervisor, and an oral presentation to the assessment committee. A Mid-term assessment committee of at least three master supervised experts should organize a defense assessment of student's mid-term report. The results of the assessment shall be marked as passed/failed.

七、学术成果要求 Requirement on Academic Achievements

兽医专业硕士研究生应从事与兽医学科培养目标相应的科学研究，达到国内一流学科硕士学术水平。鼓励取得创新性成果和技术发明等，毕业要求遵照上海交通大学和农业与生物学院的规定。答辩之前，学位论文需进行同行评审。

Master student should achieve the first-class discipline master academic level in China, and academic achievements should be in accordance with the graduation requirements of Shanghai Jiao Tong University and the School of Agriculture and Biology. Master student should be engaged in scientific research corresponding to the training objectives of Veterinary Medicine discipline, and achieve certain innovative results. Master student are encouraged to apply for patent. Before applying for defense, dissertation should be sampled and pass peer review.

八、学位论文 Thesis/dissertation work

1、学位论文的选题、内容、形式上的要求
尝试开展“学位论文 调研报告病例分析”的综合评价模式。

0pt;mso-char-indent-count: 2.0;line-height:150%">学位论文要求具有科学意义或应用价值，内容具有新颖性。要求论文设计合理、技术路线可行、数据准确可信、讨论深入、结论正确。要求论文撰写规范、层次清晰、文字流畅。在第四学期中期由学科负责人组成检查组对论文进行的情况作一次中期检查。调研报告和病例分析可参照学位论文要求执行。
2、论文送审、答辩的要求与时间节点

（1）硕士论文送审
学位论文评审一般于答辩前一个半月进行，学位论文的派送、评审意见与结果的回收汇总和反馈，由所属学科指定答辩秘书负责，论文作者不得参与。
（

1、Topic selection, contents and formal requirements of the doctoral dissertation
A comprehensive evaluation will be carried out, including evaluation of dissertation, research report and case analysis.The dissertation requires scientific significance or application value. The research of dissertation requires novelty, reasonable design, clear technical route, accurate and credible data, fluent and standard writing, and in-depth discussion. In the middle of the fourth semester, the director of discipline will perform a mid-term examination of the dissertation. The research report and case analysis can be carried out in accordance with the requirements of the dissertation.

2、The requirements and Time node of Dissertation Review and Defense
(1) Dissertation Review for Master's Degree Application
Dissertation review shall be conducted one and a half months before the dissertation defense. The Dissertation secretary, designated by the student's School, shall be responsible for the delivery of dissertation as well as collection and feedback of review comments and results, while the author of the dissertation shall not participate in the process.

(2) Dissertation Defense of Master student
After the dissertation has been reviewed, revised and improved according to the comments/suggestions from the reviewers, and finalized after approval by the supervisor, the master students who have satisfy the publication requirements as prescribed by the School may apply for the oral defense. He/she shall submit a defense application to the discipline, which should be approved by the supervisor, the discipline and the School. Thesis defense shall be completed within the maximum study duration, and shall not be accepted beyond the time limit.

The professional degree authorized unit shall invite 3 or 5 peer experts with senior professional titles or above (with the qualification of Master's student training) to set up the dissertation defense committee, of which shall include 1 to 2 experts from outside University/institution who have rich practical experience in related industry. The defense committee must be assumed by a professor-level expert. The supervisor of the master student may not serve as a member of the committee.
The dissertation defense shall follow the principles of "upholding the standards, ensuring the quality, and being just and reasonable", and shall be executed according to related regulations.
The final conclusion of the dissertation defense shall be drawn from the secret ballot of the defense committee. If the number of affirmative votes exceeds 2/3 of the number of the committee members, the defense is seen as passed. The master student is recommended for the conferral of a Master's degree, which shall be submitted to the Academic Degree Evaluation Committee of the School for approval. If the number of affirmative votes is less than 2/3 of the number of the committee members, the defense will be seen as failed. For those who fail the dissertation defense, he/she may revise the thesis within 1 year (not exceeding the maximum allowed study duration) and then apply for dissertation review and defense.

九、课程设置 Courses

详见下页 Please refer to the next page.

撰稿人签字：　　日 期：

校稿人签字：　　日 期：

审核人签字：　　日 期：

主管院长签字：　　院系公章　　日期：

课程类别 Category	课程代码 Course Code	课程名称 Course Name		学分 Credit	授课语言 Language	开课学期 Semester	是否必修 Compusory	可以计算GPA	必须计算GPA	备注 Note	多选组 Course Group
		中文Chinese	English 英文								
公共基础课 General Fundamental Courses	FL6001	学术英语	English for Academic Purposes	2	英文	秋季	是	是	是		
	MARX6001	新时代中国特色社会主义理论与实践	Theory and Practice of Socialism with Chinese Characteristics in the New Era	2	中文	春季	是	是	是		
	MARX6003	自然辩证法概论	Introduction to Dialectics of Nature	1	中文	春季	是	是	是		
	GE6001	学术写作、规范与伦理	Scientific Writing, Integrity and Ethics	1	中英并行开班	春秋季	是	是	是		
专业基础课 Program Core Courses	STAT6001	基础数理统计	Fundamental Mathematical Statistics	3	中文	春秋季	是	是	是		最少1门、最低3分
	STAT6002	生物数学（I）	Biology Mathematics I	3	中文	春秋季	是	是	是		最少1门、最低3分
	ASCI6003	细胞生物学	Cell Biology	3	中文	秋季	否	是	否		
	ASCI7007	动物分子病原学	Animal Molecular Pathogenesis	2	中文	秋季	否	是	否		
	GE6003	实验室安全教育	Laboratory Safety Education	0.5	中文	秋季	是	否	否		
	PVET6003	兽医分子细菌学	Veterinary Molecular Bacteriology	2	中文	秋季	否	是	否		
	PVET6004	兽医分子流行病学	Veterinary Molecular Epidemiology	2	中文	秋季	否	是	否		
	PVET6001	兽医分子免疫学	Veterinary Molecular Immunology	2	中文	春季	否	是	否		
	GE8001	专业实践	Professional Practice	1	中文	春秋季	是	否	否		
专业前沿课 Program Frontier Courses	PVET8002	实验动物学与动物实验技术研究进展	Advance in Laboratory Animal Science & Animal Experimental Technology	2	中文	秋季	否	是	否		
	PVET8004	动物疫苗与抗感染制剂研究进展	Advance in Animal Vaccine and Antimicrobials	2	中文	秋季	否	是	否		
	PVET8003	预防兽医学临床诊断与防控技术研究进展	Research Progress on Clinical Diagnosis and Prevention Technology of Preventive Veterinary Medicine	2	中文	春季	否	是	否		
专业选修课 Program Elective Courses	PVET8022	兽医微生物学	Veterinarian Microbiology	2	英文	秋季	否	是	否		
	PVET6005	临床免疫学	Clinical Immunology	2	英文	春季	否	是	否		
	PVET8006	兽医案例分析与实践	Analysis and Practice of Veterinary Cases	2	中文	春季	否	是	否		
	PVET8009	动物胚胎学	Veterinary Embryology	2	英文	夏季	否	是	否		
	PVET8010	骨骼：发育、结构、力学特性及营养的影响	The Skeleton: Development, Structure, Mechanical Properties and Influence of Nutrition	2	英文	夏季	否	是	否		

兽医学(090600)全日制硕士培养方案（学硕）

Veterinary Science

一、基本信息 Basic Information

院系名称 School	(150)农业与生物学院 School of Agriculture & Biology			适用年级 Grade	2024
适用专业 Major	兽医学(090600) Veterinary Science				
项目类型 Program Type	全日制硕士				
最低学分 Min Credit	30	最低GPA学分 Min GPA Credit	18	最低GPA Min GPA	2.7

二、学科简介 Introduction

上海交通大学兽医学下设基础兽医学、预防兽医学、实验动物与比较医学三个研究方向。学科现有专任教师23人，其中教授7人，研究员4人，副教授5人，副研究员3人，高级实验师1人，讲师1人，助理研究员2人。本学位点建有2个省部级基地（上海市兽医生物技术重点实验室、农业部都市农业重点实验室），以及一个高水平动物病原微生物安全二级实验室（BSL-2），同时依托上海交通大学农业与生物学院实验与实践教学中心、农业与生物学院分析测试平台，利用上海交通大学多学科交叉优势，围绕兽医专业形成Vet-X交叉科研教学平台。

Veterinary Science has three research directions: basic veterinary medicine, preventive veterinary medicine, animal model and comparative medicine. Currently, there are 23 faculties in veterinary Science , including 7 professors, 4 research fellows, 5 associate professors, 3 associate researchers, 1 senior experimentalist， 1 lecturer and 2 assistant researchers. The program of veterinary science was supported by Shanghai Key Laboratory of Veterinary Biotechnology and Key Laboratory of Urban Agriculture, Ministry of Agriculture, and a first-in-class BSL-2 biosafety center. The Interdisciplinary advantage in SJTU promotes the development of Veterinary Science to form a Vet-X research cooperation.

三、培养目标 Program Objective

硕士学位获得者应能系统、深入地掌握本学科的专业知识，了解本学科的现状、发展动态和国际学术研究的前沿；能开展具有较高学术意义或实用价值的科研工作，并有一定的创新能力和成果；能较熟练地掌握一门外国语，具有一定的写作能力和进行国际交流的能力。

Master degree recepients in Veterinary Medicine will systematically gain professional knowledge, understand the current situation, development trends and the frontiers of international academic research, and be able to carry out scientific research with high academic significance or practical value. Masters specialized in Veterinary Medicine can have innovative ability and achievements, and fluent in one foreign language with writing ability and international communication ability.

四、培养方式及学习年限 Training Mode and Study Duration

硕士生基本学习年限一般为2.5年，最短学习年限一般不少于2年，最长可延长1学年。
硕士研究生的日常培养工作实行导师负责和导师组培养相结合的办法。导师与导师组在新生入学后2周内指导硕士研究生制定切实可行的培养计划。并在培养期间完成培养方案规定的课程学习、科学研究、专业实践和论文撰写等工作。

The basic study duration of the Master degree programs normally is 2.5 years. In general, the study duration of Master students should be no less than 2 years. And the study duration can be extended 1 year to the maximum.

24.0pt;mso-char-indent-count:2.0;line-height:150%">The supervisor and the supervising group are jointly responsible for the training of the Master student. The supervisor and the supervising group

五、课程学习要求 Course Requirement

课程类别 Course Type	学分要求 Min Credits	GPA 学分要求 Min GPA Credit	备注 Note
公共基础课 General Fundamental Courses	6	6	
专业基础课 Program Core Courses	9		
专业前沿课 Program Frontier Courses	0		
专业选修课 Program Elective Courses	0		

六、培养过程要求 Training Requirement

1、硕士开题报告
硕士生学位论文开题在第二学年第一学期结束前完成。
基本完成培养计划中规定的课程学习并成绩合格，GPA满足培养方案要求。
专家小组至少由3名相关学科具有硕士研究生指导资格的专家对开题报告进行论证。
首次学位论文开题未通过的，可在下一学期再次申请开题；两次论文开题均未通过的，由开题报告专家组作出应予退学处理建议。

2、硕士生中期检查
完成培养计划中规定的全部课程学习并成绩合格；GPA不低于2.7；学位论文开题已通过。
中期检查应在学位论文送审前3个月进行，主要内容包括：研究生课程学习完成情况、论文工作进展情况、个人总结、导师评价以及考核小组面试评审等。
专家小组由3名以上相关学科具有硕士研究生指导资格的专家组成的专家组对学生报告进行答辩评审。中期检查的结果按“通过”或“不通过”记载。
中期检查不通过的硕士研究生，应给予警告，并要求其给出改进措施，上报给所在院系。经整改可于下一学期再次进行中期检查，2次中期检查不通过者，由专家组作出应予退学处理建议。

1、Thesis proposal of master student
The master degree thesis proposal should generally be carried out before the end of the first

semester of the second academic year. The students shall complete all the courses as specified in the training plan and pass the exams, the GPA should meet the requirement of program curriculum. The committee of at least three master supervised experts in the related discipline should evaluate the thesis proposal reports. The students who failed to pass the evaluation at the first time could apply for a second chance. The committee should give a suggestion of drop out of schooling to whom failed at the re-assessment.

2、 Mid-term assessment of master student
The students shall

七、学术成果要求 Requirement on Academic Achievements

硕士研究生应从事兽医学科培养目标相应的科学研究，并取得一定的创新性成果，达到国内一流学科硕士学术水平。鼓励学术型硕士研究生发表高水平学术论文，毕业要求遵照上海交通大学和农业与生物学院的规定。答辩之前，学位论文需进行同行评审。

Master student should achieve the first-class discipline master academic level in China, and academic achievements should be in accordance with the graduation requirements of Shanghai Jiao Tong University and the School of Agriculture and Biology. Master student should be engaged in scientific research corresponding to the training objectives of Veterinary Medicine discipline, and achieve certain innovative results. Master student are encouraged to publish high-level academic papers. Before applying for defense, dissertation should be sampled and pass peer review.

八、学位论文 Thesis/dissertation work

1、学位论文的选题、内容、形式上的要求
学位论文要求设计合理，技术路线清晰，数据准确可信，文字流畅、书写规范、讨论深入，论文中有一定的创新性和学术参考价值，达到可在核心期刊上发表的水平，在第四学期中期由学科负责人组成检查组对各论文进行的情况作一次中期检查。
2、论文送审、答辩的要求与时间节点

（1）论文送审

24.0pt;mso-char-indent-count:2.0;line-height:150%">学位论文评审一般于答辩前一个半月进行，学位论文的派送、评审意见与结果的回收汇总和反馈，由所属学科指定答辩秘书负责，论文作者不得参与。
（2）学位论文答辩

1、Topic selection, contents and formal requirements of the doctoral dissertation
The dissertation requires reasonable design, clear technical route, accurate and credible data, fluent and standard writing, and in-depth discussion. The dissertation requires to have innovative and academic reference value, reaching the levels that can be published in CSCD. In the fourth semester, the director of discipline will perform a mid-term inspection of the progress of each dissertation.

2、The requirements and Time node of Dissertation Review and Defense
（1） Dissertation Review for Master's Degree Application
Dissertation review shall be conducted one and a half months before the dissertation defense. The Dissertation secretary, designated by the student's School, shall be responsible for the delivery of dissertation as well as collection and feedback of review comments and results, while the author of the dissertation shall not participate in the process.

（2） Dissertation Defense of Master student
After the dissertation has been reviewed, revised and improved according to the comments/suggestions from the reviewers, and finalized after approval by the supervisor, the master students who have satisfy the publication requirements as prescribed by the School may apply for the oral defense. He/she shall submit a defense application to the discipline, which should be approved by the supervisor, the discipline and the School. Thesis defense shall be completed within the maximum study duration, and shall not be accepted beyond the time limit.

The discipline shall invite 3 or 5 peer experts with senior professional title or above (with the qualification of Master's student training) to set up the dissertation defense committee (defense committee for degree applicants with same-level education background shall consist of 5 members, including 1 expert from other University /institution out of the applicant's work unit). The defense committee must be assumed by a professor-level expert. The supervisor of the master student may not serve as a member of the committee.
The dissertation defense shall follow the principles of "upholding the standards, ensuring the quality, and being just and reasonable", and shall be executed according to related regulations.
The final conclusion of the dissertation defense shall be drawn from the secret ballot of the defense committee. If the number of affirmative votes exceeds 2/3 of the number of the committee members, the defense is seen as passed. The master student is recommended for the conferral of a Master's degree, which shall be submitted to the Academic Degree Evaluation Committee of the School for approval. If the number of affirmative votes is less than 2/3 of the number of the committee members, the defense will be seen as failed. For those who fail the dissertation defense, he/she may revise the thesis within 1 year (not exceeding the maximum allowed study duration) and then apply for dissertation review and defense.

九、课程设置 Courses

详见下页 Please refer to the next page.

撰稿人签字：　　日 期：

校稿人签字：　　日 期：

审核人签字：　　日 期：

主管院长签字：　　院系公章　　日期：

课程类别 Category	课程代码 Course Code	课程名称 Course Name		学分 Credit	授课语言 Language	开课学期 Semester	是否必修 Compusory	可以计算GPA	必须计算GPA	备注 Note	多选组 Course Group
		中文Chinese	English 英文								
公共基础课 General Fundamental Courses	FL6001	学术英语	English for Academic Purposes	2	英文	秋季	是	是	是		
	MARX6001	新时代中国特色社会主义理论与实践	Theory and Practice of Socialism with Chinese Characteristics in the New Era	2	中文	春季	是	是	是		
	MARX6003	自然辩证法概论	Introduction to Dialectics of Nature	1	中文	春季	是	是	是		
	GE6001	学术写作、规范与伦理	Scientific Writing, Integrity and Ethics	1	中英并行开班	春秋季	是	是	是		
专业基础课 Program Core Courses	STAT6001	基础数理统计	Fundamental Mathematical Statistics	3	中文	春秋季	是	是	是		最少1门、最低3分
	STAT6002	生物数学（I）	Biology Mathematics I	3	中文	春秋季	是	是	是		最少1门、最低3分
	ASCI6003	细胞生物学	Cell Biology	3	中文	秋季	否	是	否		
	ASCI6004	高级动物营养学	Advanced Animal Nutrition	3	中文	秋季	否	是	否		
	ASCI7007	动物分子病原学	Animal Molecular Pathogenesis	2	中文	秋季	否	是	否		
	GE6003	实验室安全教育	Laboratory Safety Education	0.5	中文	秋季	是	否	否		
	ASCI6001	数量遗传学	Quantitative Genetics	3	中文	春季	否	是	否		
	ASCI6002	动物基因组学	Animal Genomics	2	中文	春季	否	是	否		
	ASCI6006	实验设计与R语言	Experimental Design and R Program	2	中文	春季	否	是	否		
	PVET6001	兽医分子免疫学	Veterinary Molecular Immunology	2	中文	春季	否	是	否		
专业前沿课 Program Frontier Courses	ASCI8001	动物营养与饲料科学研究进展	Advances in Animal Nutrition and Feed Science	2	中文	秋季	否	是	否		
	PVET8002	实验动物学与动物实验技术研究进展	Advance in Laboratory Animal Science & Animal Experimental Technology	2	中文	秋季	否	是	否		
	GE6012	学术报告与研讨会	Academic Seminars	2	中文	春季	是	否	否		
专业选修课 Program Elective Courses	ASCI8004	饲料学	The Special Subject of Animal Feed	2	中文	春季	否	是	否		
	PVET8006	兽医案例分析与实践	Analysis and Practice of Veterinary Cases	2	中文	春季	否	是	否		

园艺学(090200)全日制硕士培养方案（学硕）

Horticulture

一、基本信息 Basic Information

院 系 名 称 School	(150)农业与生物学院 School of Agriculture & Biology			适 用 年 级 Grade	2024
适 用 专 业 Major	园艺学(090200) Horticulture				
项 目 类 型 Program Type	全日制硕士				
最 低 学 分 Min Credit	30	最低GPA学分 Min GPA Credit	18	最低GPA Min GPA	2.7

二、学科简介 Introduction

上海交通大学园艺学科始建于1980年，1999年开始培养硕士和博士研究生，2007年建立园艺学博士后流动站，2010年获一级学科博士学位授予权。

园艺学依托上海交通大学强大的理工学科优势，以现代都市园艺基础和应用研究为特色和重点，形成园艺作物发育生物学、园艺作物品质与代谢工程、园艺作物种质创新、设施园艺与高效栽培四个研究方向，在基础生物学、作物遗传育种、资源评价与利用、作物发育、品质形成、抗性机理、植物激素和代谢调控等方面开展研究和探索，在园艺植物新品种培育、高效生态栽培技术开发等领域形成了强有力的研究团队。学科师资力量雄厚，现有专任教师57人，其中讲席教授2人，特聘教授2人，教授18人，副教授30人，讲师9人， 99%教师具有博士学位，90%具有海外经历。学科拥有国家千人1人、长江学者1人、国家杰出青年基金获得者1人，青年千人1人，教育部新世纪人才3人、 上海浦江学者9人、行业岗位科学家、上海市领军人才等多人，形成了基础-应用-推广紧密结合的人才队伍。与美国加利福尼亚戴维斯分校、美国康奈尔大学、美国罗格斯大学、荷兰瓦格宁根大学、英国诺丁汉大学、日本千叶大学等国际知名的农业院校密切合作。拥有农业部都市农业（南方）重点实验室、浦江绿谷国家农业创新集成与示范基地、教育部农林实践基地等省部级研究平台。形成了“学校分析测试中心”、“学院分析测试平台”和“园艺学科研平台”三位一体的科研支撑体系，科研条件建设达到国际一流水平，为研究生培养和科技创新提供了保障。

本培养方案旨在结合上海交通大学综合性大学的优势，培养在园艺相关领域具有国际视野、掌握前沿基础理论知识和应用技术、能引领学科发展的高级专门人才。

Horticulture is one of the key disciplines of Shanghai Jiao Tong University (SJTU) and founded in 1980. It starts to confer the master and doctor degrees in 1999 and accept postdoctor in 2007. Taking the advantages of strong science and engineering disciplines in SJTU, horticulture characters with basic and applied research in modern urban gardening, and develops four research fields, including including horticultural crop developmental biology, horticultural crop quality and metabolic engineering, horticultural crop germplasm innovation, facility horticulture and efficient cultivation. Horticulture science focuses on genetics and breeding, resource evaluation and utilization, quality formation, plant hormone and metabolic regulation, plant growth regulation and biotic/abiotic stress mechanism of horticultural crops. Strong research teams specialize in genetics and breeding of horticultural crops, ecological cultivation and development. There are 57 staffs in the horticultural field, including 2 chair Professors, 2 Distinguished Professors, 18 Professors, 30 Associate Professors and 9 Assistant professor. 99% teachers with doctoral degree, and 90% teachers with at least one year’ s overseas research experience. There are 1 Cheung Kong Scholar, 1 Distinguished Young Scholar, 2 winners of New Century Excellent Talents support program, 2 outstanding academic leader in Shanghai, 1 gainers of Tang Cornell-China Scholars Program and 2 post experts of National Modern Agriculture Industry Technology System (Viticulture and Enology).We closely collaborated with globally renowned universities and agricultural colleges, such as University of California-Davis, Cornell University, University of Rogers, Wageningen University, University of Nottingham and Chiba University of Japan. The discipline has the Urban Agricultural (South China) Key Laboratory of Ministry of Agriculture, Pujiang Green Valley National Agricultural Innovation Integration and Demonstration Base, and Agricultural and Forestry Practice Base of Ministry of Education. Three research platforms, including Instrumental Analysis Center of SJTU, School of Agriculture and Biology (SAB) and Department of Plant Sciences, could support the top level research in the world.

三、培养目标 Program Objective

1. 基本素质

学术道德。应恪守学术道德规范与研究伦理，遵守国家有关法律和规章制度，充分尊重他人的学术成果，不得捏造、篡改、拼凑试验数据或结果，在严格遵守知识产权的基础上借鉴和创新。

学术素养。应热爱园艺事业，对园艺科学问题具有浓厚的兴趣。具备较为宽广坚实的学科基础知识和实践技能，把握国内外现代园艺科学发展动态，具备创新思维和团队协作精神。能胜任高等院校教学、科学研究或科技管理等工作，具备园艺学高端人才的素养。

2. 基本能力

获取知识的能力。具有通过多种手段或途经获取园艺学科相关研究前沿动态的能力，能够充分利用文献资料、网络、合作交流、国内外学术会议和园艺生产实践等多种方法途径获取专业知识。

学术鉴别能力。应具有敏锐的学术鉴别能力，即对园艺学科已有的研究成果真实性、创新性的鉴别，准确发现研究课题关键点。

科学研究能力。能够从园艺产业和学科发展过程中，针对全产业链中的具体环节，提出有价值的研究问题，通过查阅文献，设计实验方案，独立组织实施、分析、总结并撰写论文。通过上述科研活动训练，具备独立承担有关科研项目的能力。

实践能力。应具有较强的实践能力，善于将基本理论和园艺现象、生产与管理相结合，具备良好的协作精神和一定的组织能力。应参与相关的生产与研究工作，了解社会、农业、以及生产实践对专业理论和技术的需求。

学术交流能力。应熟练掌握一门外语，具备外文写作和国际会议学术交流，表达学术思想，展示学术成果的能力。

1. Basic quality

Academic ethics. We require our students to abide by academic and research ethics, fully respect others' academic achievements, and learn from and innovate on the basis of strictly abiding by intellectual property rights.

Professional quality. Students are trained to have a good scientific attitude and team spirit, systematically grasp various basic theoretical knowledge and research methods involved in the field of horticulture, and have the ability to find, analyze and solve problems, as well as the ability of innovation and entrepreneurship.

2. Basic ability

Obtain basic knowledge. Students are expected to understand current status of horticultural industry and research, and to obtain a wide range of professional knowledge through various approaches, including reference, internet, collaboration, symposium and practice.

Academic identification. Students are expected to have the ability of academic identification to find the key issues of research projects in horticultural crops.

Scientific research. Students are expected to systematically master the professional knowledge in the field of horticulture, including genetics and breeding, cultivation and postharvest, and to propose valuable scientific project through independent reading, designing and conducting experiments until writing articles.

Practice. Students are expected to have strong practice ability in Holticulture, and to apply theory to production and management through collaboration. To understand the needs of professional theories and technologies in production, students need to participate production and research projects.

Academic exchange. To fulfill academic exchange, students are expected to grasp at least one foreigen language for reading, writing and oral skills in international conferences.

四、培养方式及学习年限 Training Mode and Study Duration

硕士生基本学习年限一般为2.5年，最短学习年限一般不少于2年，最长可延长1学年。

硕士研究生的日常培养工作实行导师负责和导师组培养相结合的办法。导师与导师组在新生入学后2周内指导硕士研究生制定切实可行的培养计划。并在培养期间完成培养方案规定的课程学习、科学研究、专业实践和论文撰写等工作。

The basic study duration of the Master degree programs normally is 2 to 3 years. In general, the study duration of Master students should be no less than 2 years. And the study duration can be extended 1 year to the maximum.

The supervisor and the supervising group are jointly responsible for the training of the Master student. The supervisor and the supervising group will guide the Master student to develop a feasible and tailored training plan within the first 2 weeks after enrollment. The Master students shall complete the coursework, scientific research, professional practice, thesis work and other work as specified in the program curriculum.

五、课程学习要求 Course Requirement

课程类别 Course Type	学分要求 Min Credits	GPA 学分要求 Min GPA Credit	备注 Note
公共基础课 General Fundamental Courses	6	6	
专业基础课 Program Core Courses	9		
专业前沿课 Program Frontier Courses	0		
专业选修课 Program Elective Courses	0		

六、培养过程要求 Training Requirement

1. 硕士开题报告

硕士生学位论文开题在第二学年第一学期结束前完成。基本完成培养计划中规定的课程学习并成绩合格，GPA满足培养方案要求。

专家小组至少由3名相关学科具有硕士研究生指导资格的专家对开题报告进行论证。

首次学位论文开题未通过的，可在下一学期再次申请开题；两次论文开题均未通过的，由开题报告专家组作出应予退学处理建议。

2. 硕士生中期检查

完成培养计划中规定的全部课程学习并成绩合格；GPA不低于2.7；学位论文开题已通过。

中期检查应在学位论文送审前3个月进行，主要内容包括：研究生课程学习完成情况、论文工作进展情况、个人总结、导师评价以及考核小组面试评审等。

专家小组由3名以上相关学科具有硕士研究生指导资格的专家组成的专家组对学生报告进行答辩评审。中期检查的结果按“通过”或“不通过”记载。

中期检查不通过的硕士研究生，应给予警告，并要求其给出改进措施，上报给所在院系。经整改可于下一学期再次进行中期检查，2次中期检查不通过者，由专家组作出应予退学处理建议。

1. Thesis proposal of master student

The master degree thesis proposal should generally be carried out before the end of the first semester of the second academic year. The students shall complete all the courses as specified in the training plan and pass the exams, the GPA should meet the requirement of program curriculum. The committee of at least three master supervised experts in the related discipline should evaluate the thesis proposal reports. The students who failed to pass the evaluation at the first time could apply for a second chance. The committee should give a suggestion of drop out of schooling to whom failed at the re-assessment.

2. Mid-term assessment of master student

The students shall complete all the courses as specified in the training plan and pass the exams, the GPA should be no less than 2.7. And also the students have passed thesis proposal assessment.

Mid-term assessment should be completed at least 3-month in advance of thesis review. The assessment shall include a review of course completion, the progress of the thesis, personal progress summary, evaluation by the supervisor, and an oral presentation to the assessment committee.

A Mid-term assessment committee of at least three master supervised experts should organize a defense assessment of student's mid-term report. The results of the assessment shall be marked as passed/failed.

The master student whose mid-term assessment failed to pass shall be warned, and be requested to submit a corrective action report. Those who have improved their mid-term reports can participate in a re-assessment in the next semester. The committee should give a suggestion of drop out of schooling to whom failed at the re-assessment.

七、学术成果要求 Requirement on Academic Achievements

硕士研究生应从事园艺学科培养目标相应的科学研究，并取得一定的创新性成果，达到国内一流学科硕士学术水平。鼓励学硕发表高水平学术论文，毕业要求遵照上海交通大学和农业与生物学院的规定。答辩之前，学位论文需通过同行评审。

Master student should achieve the first-class discipline master academic level in China, and academic achievements should be in accordance with the graduation requirements of Shanghai Jiao Tong University and the School of Agriculture and Biology. Master student should be engaged in scientific research corresponding to the training objectives of horticulture discipline, and achieve certain innovative results. Master students are encouraged to publish high-level academic papers. Before applying for defense, dissertation must pass peer review.

八、学位论文 Thesis/dissertation work

1. 规范性要求

园艺学科硕士学位论文的规范性主要包括:

(1)学位论文选题应直接来源于具有明确的园艺学科背景(如果树学蔬菜学、观赏园艺学、茶学、设施园艺学和采后科学等)的园艺生产实践的科学问题或实际问题。

(2)学位论文选题原则上要具体,涉及园艺学科的应用基础研究,如种质资源与遗传育种、生理生态、采后贮藏与保鲜及设施园艺作物生产等;涉及生产技术上,则应从无病毒苗木培育技术、制种技术、新型贮藏保鲜技术和无土栽培技术等方面进行选题。

(3)学位论文选题要进行文献检索。文献综述应对选题所涉及的园艺科学技术问题或研究课题的国内外状况有清晰的描述与分析,要有对选题涉及的代表性学术专著和专论的评价并明确选题的学术意义。

(4)学位论文应综合运用园艺学科和相邻学科(如生物学、土壤学植物保护学等)的相关学术基础理论、科学方法、专业知识和技术手段,对园艺学科中或园艺产业中面临的主要问题进行分析研究,能在园艺学科或园艺产业等方面提出新见解。

(5)学位论文的研究方法要围绕选题,能够根据现代园艺学科及其他相邻学科的要求,选择可靠、有效、实用的研究方法。

(6)学位论文需要遵守国家和授予权单位规定的学位论文基本格式。

2. 质量要求

园艺学科硕士学位论文要具有一定学术水平、理论意义或实用价值。具体包括以下方面:

(1)学位论文拟解决的主要问题要对园艺学科或园艺产业某一方面的发展有一定的启示和借鉴意义。

(2)学位论文的试验设计应具备科学性和完整性。

1. Standardization requirements

The standardization of doctoral dissertations in horticulture mainly includes:

(1) The topic of dissertation should be directly from the scientific or practical problems of horticultural production practice with clear background of horticulture (such as pomology and olericulture, ornamental horticulture, tea science, facility horticulture and post harvest Science, etc.).

(2) In principle, the topics selection of thesis should be specific: in the field of applied basic research in horticulture, such as germplasm resources and genetic breeding, physiological and ecology, postharvest storage and preservation, and facility horticultural crop production, etc.; in terms of production technology, the topics should be selected from virus-free seedling cultivation technology, seed production technology, new storage and preservation technology and soilless cultivation technology, etc.

(3) Literature retrieval is necessary for the topic selection of dissertation. Literature review should have a clear description and analysis of the situation of horticultural science and technology issues or research topics all over the world, and should have an

evaluation of representative academic monographs involved in the topic and clarify the academic significance of the topic.

(4) A comprehensive of academic basic theories, scientific methods, professional knowledge and technical means of horticulture and adjacent disciplines (such as biology, soil science and plant protection) should be used in degree thesis. The main problems in horticulture or horticultural industry should be analyzed and studied, and put forward with new opinions in horticulture or horticultural industry.

(5) The research methods of the dissertation should focus on the topic selection, and should select reliable, effective and practical research methods which according to the requirements of modern horticulture and other adjacent disciplines.

(6) The dissertation shall comply with the basic format of the dissertation stipulated by the nation and the conferring authority.

2 Quality requirements

The Ph.D. degree thesis of horticulture should have a certain academic level, theoretical significance, or practical value. It includes the following aspects:

(1) The main problems to be solved in the dissertation should have a certain enlightenment and reference significance for the development of horticulture discipline or horticulture industry.

(2) The experimental design of the dissertation should be scientific and integrative.

(3) The experiment design of the dissertation should be reasonable, the data should be detailed and reliable, the analysis and discussion are reasonable, and the conclusion is objective and appropriate.

3. Dissertation Review for (Academic) Master’ s Degree Application

九、课程设置 Courses

详见下页 Please refer to the next page.

撰稿人签字：　　日 期：

校稿人签字：　　日 期：

审核人签字：　　日 期：

主管院长签字：　　院系公章　　日期：

课程类别 Category	课程代码 Course Code	课程名称 Course Name		学分 Credit	授课语言 Language	开课学期 Semester	是否必修 Compusory	可以计算GPA	必须计算GPA	备注 Note	多选组 Course Group
		中文Chinese	English 英文								
公共基础课 General Fundamental Courses	FL6001	学术英语	English for Academic Purposes	2	英文	秋季	是	是	是		
	MARX6001	新时代中国特色社会主义理论与实践	Theory and Practice of Socialism with Chinese Characteristics in the New Era	2	中文	春季	是	是	是		
	MARX6003	自然辩证法概论	Introduction to Dialectics of Nature	1	中文	春季	是	是	是		
	GE6001	学术写作、规范与伦理	Scientific Writing, Integrity and Ethics	1	中英并行开班	春秋季	是	是	是		
专业基础课 Program Core Courses	STAT6001	基础数理统计	Fundamental Mathematical Statistics	3	中文	春秋季	是	是	是		最少1门、最低3分
	STAT6002	生物数学（I）	Biology Mathematics I	3	中文	春秋季	是	是	是		最少1门、最低3分
	AGRI6003	分子遗传学	Molecular Genetics	2	中文	秋季	否	是	否		
	GE6003	实验室安全教育	Laboratory Safety Education	0.5	中文	秋季	是	否	否		
	HORT7001	植物激素生理	Plant Hormones	2	中文	秋季	是	是	否		
	HORT7005	植物生物技术大实验	Practice of Plant Biotechnology	3	中文	秋季	否	是	否		
	HORT7006	分子生物学	Molecular Biology	2	英文	春季	是	是	否		
	HORT7007	生物信息学	Bioinformatics	2	中文	春季	否	是	否		
专业前沿课 Program Frontier Courses	AGRI8001	园艺科学进展	Advance in Horticulture	2	中文	秋季	否	是	否		
	HORT8002	园艺学研究方法	Horticulture Research	2	中文	秋季	否	是	否		
	GE6012	学术报告与研讨会	Academic Seminars	2	中文	春季	是	否	否		
	HORT9001	植物基因工程	Plant Genetic Engineering	2	中文	春季	否	是	否		
专业选修课 Program Elective Courses	AGRI6001	运动草坪管理	Sports Turf Management	2	中文	秋季	否	是	否		
	AGRI6002	设施园艺环境生物工程	Environmental Management and Bio-Tech for Protected Horticulture	2	中文	秋季	否	是	否		
	AGRI6005	生物统计软件应用	Application of Statistical Analysis System	2	中文	秋季	否	是	否		
	AGRI6008	高级植物栽培生理学	Advanced Physiology of Plant Cultivation	2	中文	秋季	否	是	否		
	AGRI6011	园艺产品采后生物学	Postharvest Biology of Horticultural Products	2	中文	秋季	否	是	否		
	HORT6001	高级植物育种学	Advanced Plant Breeding	2	中文	秋季	否	是	否		
	HORT6004	园艺植物发育生物学	Developmental Biology of Horticulture Plant	2	中文	秋季	否	是	否		

资源利用与植物保护(095132)全日制硕士培养方案（崇明专项）

Resources Utilization and Plant Protection

一、基本信息 Basic Information

院系名称 School	(150)农业与生物学院 School of Agriculture & Biology			适用年级 Grade	2024
适用专业 Major	资源利用与植物保护(095132) Resources Utilization and Plant Protection				
项目类型 Program Type	全日制硕士				
最低学分 Min Credit	30	最低GPA学分 Min GPA Credit	18	最低GPA Min GPA	2.7

二、学科简介 Introduction

资源利用与植物保护全日制专业硕士-中以双硕士专项为上海交通大学与以色列耶路撒冷希伯来大学基于战略伙伴关系，共建上海交通大学国际农业与生态学院，由上海交通大学农业与生物学院与罗伯特·希尔顿·史密斯农业、食品和环境学院共同设立的联合培养双硕士项目。资源利用与植物保护学科主要依托生态学科建设。上海交通大学生态学学科2003年获硕士学位授予权，2005年获博士学位授予权，2011年获一级学科博士点，同年设立博士后流动站。

生态学是研究生物与其环境之间相互关系的学科，主要目的是保护和利用生物多样性，防控有害生物，维持自然生态系统的安全性，人与生物圈的协调性，现代经济发展的高效性和可持续性，从而实现人类社会的健康绿色发展。现代生态学的研究尺度进一步向微观和宏观两个方面发展，如分子生态学和全球生态学。近几十年来，生态学还注重学科交叉和实际应用，正越来越紧密地与社会经济发展相结合，并服务于生产实践，成为一门多学科交叉应用性强的基础学科。无论是针对全球生态安全，区域生态文明建设，还是生态经济管理和工程等方面，生态学都具有更迫切的需求和更广阔的前景。

学科在微生物生态学、生态系统生态学、修复生态学、都市农业生态与生境控制等研究方向上形成了明显的特色和优势。学科专任教师队年龄、职称、学科背景结构合理，100%具有博士学位、90%具海外经历。建有上海长三角区域生态环境变化与综合治理国家野外科学观测研究站、国家新农村发展研究院、农业农村部都市农业重点实验室、教育部农林实践基地、交大-以色列希伯来大学现代农业联合研究中心、康奈尔大学课程中心。与美国、芬兰、日本等国家的10多个知名学校和科研机构建立了良好的联合培养、学术交流和学生交换等国际合作关系。学科实施基地团队项目一体化，教学与科研综合实力达到国际先进水平，交叉引领创新能力强。100%专任教师主持国家自然基金、重点研发计划等国家级项目，科研经费充足，省部级及以上科研奖项多项，种养殖耦合、木霉菌生防、生物滤池、稻蛙共生等一批创新性成果得到产业化应用示范，年均专利转化5件以上，效益显著。

The full-time master's degree in Resources Utilization and Plant Protection -China-Israeli Dual Master's Program is a joint dual master's program between the International College of Agriculture and Ecology at Shanghai Jiao Tong University and Robert Hilton Smith College of Agriculture, Food and Environment at Hebrew University of Jerusalem, Israel, based on their strategic partnership. Resources Utilization and Plant Protection disciplines mainly rely on the construction of Ecology disciplines. In 2003, Shanghai Jiaotong University obtained the right to confer master's degree in ecology, the right to confer doctor's degree in 2005, the right to confer doctor's degree in primary discipline in 2011, and the post doctoral mobile station was established in the same year.

Ecology is the discipline that focuses on the interrelationships between organisms and their environment, with the primary aim of protecting and utilizing biodiversity, controlling harmful organisms, maintaining the safety of natural ecosystems, the harmony between humans and the biosphere, the efficiency and sustainability of modern economic development, thereby achieving healthy and green development of human society. The research scope of modern ecology has further expanded in both micro and macro directions, such as molecular ecology and global ecology. In recent decades, ecology has also focused on interdisciplinary integration and practical application, becoming increasingly intertwined with socio-economic development and serving production practices, making it a foundational discipline with strong interdisciplinary and applied characteristics. Whether it is for global ecological security, regional ecological civilization construction, or ecological economic management and engineering, there is an urgent need and broad prospects for ecology.

The discipline has formed distinctive features and advantages in research areas such as microbial ecology, ecosystem ecology, restoration ecology, urban agricultural ecology, and habitat control. The faculty of the discipline is structurally balanced in terms of age, professional titles, and academic backgrounds, with 100% holding a doctoral degree and 90% having overseas experience. There are Shanghai Yangtze River Delta Eco-environmental Change and Management Observation and Research Station(Ministry of Science and Technology), National New Rural Development Research Institute, Key Laboratory of Urban Agriculture(Ministry of Agriculture and Rural Areas), agriculture and forestry practice base of Ministry of education, modern agriculture joint research center of Jiaotong University Israel Hebrew University and Curriculum Center of Cornell University. It has established good international cooperation relations with more than 10 well-known schools and scientific research institutions in the United States, Finland, Japan and other countries, such as joint training, academic exchange and student exchange. The project integration of the discipline implementation base team, the comprehensive strength of teaching and scientific research has reached the international advanced level, and the ability of cross leading innovation is strong. 100% of the full-time teachers presided over national projects such as National Natural Science Foundation of China and key R&D programs, with sufficient scientific research funds, a number of scientific research awards at provincial and ministerial level and above, and a number of innovative achievements such as breeding coupling, Trichoderma biocontrol, biofilter, rice frog symbiosis have been industrialized applied and demonstrated, with an average annual patent conversion of more than 5, with remarkable benefits.

三、培养目标 Program Objective

1.专业基础

旨在为资源环境治理、土壤肥料、植物保护领域相关行政部门、行业与企事业单位、新型农业经营主体等培养精技术、懂经营、会管理的应用型、复合型高层次职业技能人才。了解国内外资源利用与植物保护学的理论与技术发展趋势；具有资源利用与植物保护学专业素养和解决生产问题的专业技能；基本具备独立从事本专业教学、科研、技术研发以及工程管理的能力。

2.专业技能

获取知识的能力。有能力获得在资源利用与植物保护学领域开展研究所需背景知识，具有较好的资源利用与植物保护学与相关交叉学科专业基础、计算机水平及外语水平，有能力对现有知识进行利用和扩充，有指导学生的能力。
科学研究能力。能在某一专门资源利用与植物保护学领域获得较强的专业能力，能够为解决某一科学问题而设计和实施科学研究方案调查或实验，能对所获得的研究结果进行合理分析和客观评价。掌握相关研究方法和实验技术。能准确表述研究结果，并能够发表在国内外专业期刊上。
实践能力。具有较强的实地调查、观测和科学研究动手能力，有较好的独立工作能力，具备良好的团队合作能力。
学术交流能力。基本具备中外文学术交流的基本能力，包括条理清楚地演讲、写作和符合逻辑的辩论等。
3.专业素质培养
学术素养。系统掌握资源利用与植物保护学和相关交叉学科的基础知识，熟悉资源利用与植物保护学专业的历史、现状和发展趋势，并掌握和应用资源利用与植物保护学的实验操作技能，具备严谨的科学精神、独立思考和动手能力，并具备运用专业知识发现问题、分析问题、解决问题的能力。具有较好的外语听说读写能力。具备从事资源利用与植物保护学和相关学科的教学、科研和管理的能力。

1. Basic knowledge
Aims to cultivate talents with outstanding techniques, management skills, practical abilities and interdisciplinary capabilities, for the administration department,industry, enterprise and public institution, and new agriculture body in the area of resource and environmental governance, soil fertilizers and plant protection.Understand the theory and technology development trend of resources utilization and plant protection at home and abroad; have the professional quality of resources utilization and plant protection and the professional skills to solve production problems; basically have the ability to independently engage in the teaching, scientific research, technical research and development of this major, as well as the engineering management.
2. Academic ability
The ability to acquire knowledge. Ability to acquire the background knowledge needed for research in the field of resources utilization and plant protection, have a good professional foundation of resources utilization and plant protection and related interdisciplinary disciplines, computer level and foreign language level, have the ability to use and expand existing knowledge, and have the ability to guide students.
Scientific research ability. Can obtain strong professional ability in a special field of resources utilization and plant protection, can design and implement scientific research plan investigation or experiment for solving a scientific problem, can reasonably analyze and objectively evaluate the research results. Master relevant research methods and experimental techniques. Can accurately express the research results, and can be published in professional journals at home and abroad.
Practical ability. Strong ability of field investigation, observation and scientific research, good ability of independent work, good team work ability.
Academic communication ability. Basic ability of academic exchange between Chinese and foreign languages, including speaking, writing and logical debate.
3. Basic quality
Academic literacy. Systematically master the basic knowledge of resources utilization and plant protection and related interdisciplinary disciplines, be familiar with the history, current situation and development trend of resources utilization and plant protection, master and apply the experimental operation skills of resources utilization and plant protection, have rigorous scientific spirit, independent thinking and hands-on ability, and have the ability to use professional knowledge to find, analyze and solve problems. Good English listening,

四、培养方式及学习年限 Training Mode and Study Duration

1、学习年限：一般为2.5年，最短学习年限一般不少于2年，最长可延长1学年。
2、学习方式：采用全日制学习方式。由课程学习、专业实践、学位论文研究三个主要环节组成。
3、培养方式：采取课程学习和实践相结合的学习方式，第一学年在上海交大完成课程修读及参与实践教学。赴希伯来大学学习的学生，需提前提出申请，希伯来大学将对申请者进行选拔，达到外方注册要求的学生（如雅思成绩达到6分或托福成绩达到80分级以上，以及其他外方的要求），将根据外方安排前往耶路撒冷希伯来大学，进行至少一个学期（不含小学期）的课题研究和实践。学位论文要求同时使用中文和英文两种语言书写。达到双方院校学位授予要求的学生，将获得上海交通大学和希伯来大学分别颁发的学位证书。

1. Study period: The study duration for a Master's degree normally is 2.5-year. The shortest study period is 2-year. Students who can't complete their program can apply for an extension of study duration, up to 1 year.
2. Learning mode: full-time study is required. Students should complete training process including course learning, professional practice, scientific research.
3. Cultivation mode: The training program for a Master's degree includes course learning and practice activities. Students shall complete all credit courses within the first academic year at Shanghai Jiao Tong University. Students should submit a Hebrew University semester registration application in advance. Students who meet foreign student's registration requirements of Hebrew University (such as IELTS score of 6 or TOEFL score of 80 at least, as well as other requirements) will go to Hebrew University of Jerusalem according to the Hebrew University schedule.Students should conduct research and practice activity for at least one semester (excluding summer semester) on the Hebrew University campus. The Master Degree Dissertation is required to be written in both Chinese and English. Students who meet the degree awarding requirements of both universities will achieve certificates from Shanghai Jiao Tong University and Hebrew University respectively.

五、课程学习要求 Course Requirement

课程类别 Course Type	学分要求 Min Credits	GPA 学分要求 Min GPA Credit	备注 Note
公共基础课 General Fundamental Courses	6	6	
专业基础课 Program Core Courses	0		

专业前沿课 Program Frontier Courses	0		
专业选修课 Program Elective Courses	0		

六、培养过程要求 Training Requirement

1. 开题报告

硕士生学位论文开题在第二学年第一学期结束前完成。基本完成培养计划中规定的课程学习并成绩合格，GPA满足培养方案要求。专家小组至少由3名相关学科具有硕士研究生指导资格的专家对开题报告进行论证。首次学位论文开题未通过的，可在下一学期再次申请开题；两次论文开题均未通过的，由开题报告专家组作出应予退学处理建议。

2. 中期检查

完成培养计划中规定的全部课程学习并成绩合格；GPA不低于2.7；学位论文开题已通过。中期检查应在学位论文送审前3个月进行，主要内容包括：研究生课程学习完成情况、论文工作进展情况、个人总结、导师评价以及考核小组面试评审等。专家小组由3名以上相关学科具有硕士研究生指导资格的专家组成的专家组对学生报告进行答辩评审。中期检查的结果按“通过”或“不通过”记载。中期检查不通过的硕士研究生，应给予警告，并要求其给出改进措施，上报给所在院系。经整改可于下一学期再次进行中期检查，2次中期检查不通过者，由专家组作出应予退学处理建议。

3. 专业实践要求；

结合资源利用与植物保护学科特色，利用校企优势互补，共建校内、校外实践基地；建设、配备一支数量稳定、实践经验丰富的实践教学师资队伍，保障专业实践按计划、规范化开展。专业学位硕士研究生的培养实行中外双导师共同指导的方式，以中方导师指导为主，外方导师参与实践过程、项目研究和论文等多个环节的指导工作。专业学位硕士研究生的课程教学要加强案例教学、实践（现场）教学、模拟训练等教学方法的运用，突出专业学位硕士研究生实践研究和技术创新能力的培养，强化对专业学位硕士研究生运用所学基本知识和技能解决实际问题的能力和水平的考核。专硕在学期间，必须保证不少于半年的专业实践教学，获取专业实践课程的学分。

1. Thesis proposal of master student

The master degree thesis proposal should generally be carried out before the end of the first semester of the second academic year. The students shall complete all the courses as specified in the training plan and pass the exams, the GPA should meet the requirement of program curriculum. The committee of at least three master supervised experts in the related discipline should evaluate the thesis proposal reports. The students who failed to pass the evaluation at the first time could apply for a second chance. The committee should give a suggestion of drop out of schooling to whom failed at the re-assessment.

2. Mid-term assessment of master student

The students shall complete all the courses as specified in the training plan and pass the exams, the GPA should be no less than 2.7. And also the students have passed thesis proposal assessment. Mid-term assessment should be completed at least 3-month in advance of thesis review. The assessment shall include a review of course completion, the progress of the thesis, personal progress summary, evaluation by

supervised experts should organize a defense assessment of student's mid-term report. The results of the assessment shall be marked as passed/failed.The master student whose mid-term assessment failed to pass shall be warned, and be requested to submit a corrective action report. Those who have improved their mid-term reports can participate in a re-assessment in the next semester.

3. Requirement for Practice of the Professional Master Degree Programs

Combination with the characteristics of the discipline of resources utilization and plant protection, the practice bases inside and outside University should be established by taking complementary advantages of both school and enterprise. A stable, rich-experienced practical teaching team should be developed to ensure that the professional practice can be carried out in a planned and standard way. The training of the professional master students is encouraged to be co-supervised by two supervisors, one inside and the other outside the University. The internal supervisor takes the major responsibility, while the external supervisor will participate in supervising the practice, project research, thesis, and other works. The delivering of the professional master degree courses shall enhance the application of diversified teaching methods, such as case study, on-site practice, and training simulations, highlighting the training of practical research and technological innovation abilities, and strengthening the assessment of their abilities to apply their knowledge to solve real-life problems. During their course of study, the professional master students shall have no less than six months of professional practice. The professional practice will account for credit as a course.

七、学术成果要求 Requirement on Academic Achievements

硕士研究生应从事资源利用与植物保护学科培养目标相应的科学研究，并取得一定的创新性成果，达到国内一流学科硕士学术水平。鼓励在学期间以第一作者在国内外学术刊物上发表与学位论文内容相关的高水平学术论文，毕业要求遵照上海交通大学和农业与生物学院的规定。答辩之前，学位论文需通过同行评审。

Master student should achieve the first-class discipline master academic level in China, and academic achievements should be in accordance with the graduation requirements of Shanghai Jiao Tong University and the School of Agriculture and Biology. Master student should be engaged in scientific research corresponding to the training objectives of resources utilization and plant protection discipline, and achieve certain innovative results. Master student are encouraged to publish high-level academic papers related to the contents of dissertation in domestic and foreign academic journals as the first author. Before applying for defense, dissertation must pass peer review.

八、学位论文 Thesis/dissertation work

参与了本项目且符合双方院校毕业要求的学生，将获得由两所大学颁发的学位证书。

1. 论文选题

选题应来源于资源利用与植物保护产业的实际需求，是某一区域相关产业或科技型企业发展中急需解决的生产、技术、流通或管理等领域的具体命题。

11pt; font-family: 楷体;">2. 论文形式

学位论文应反映研究生综合运用知识技能解决问题的能力和水平，应具有一定的创新性和学术参考价值，核心研究内容及其结果达到可在核心期刊上发表的水平。以论文形式表现，技术路线清楚，数据可信，分析可靠，书写规范，文字流畅，图表清晰。学位论文要求同时使用中文和英文两种语言书写完成，英文论文将提交给希伯来大学。其中中文论文正文一般不少于1.5万字。

3. 论文送审

学位论文评审一般于答辩前一个半月进行，学位论文的派送、评审意见与结果的回收汇总和反馈，由所属学科指定答辩秘书负责，论文作者不得参与。

4. 论文答辩

通过论文评审并按评审专家意见修改、完善，经导师审核定稿，且达到学院规定的科研成果要求者，向所在学科提出答辩申请，经导师、学科、学院审核后举行学位论文答辩会。学位论文答

Students who participate in the program and meet the graduation requirements of both institutions will receive diplomas from both universities

1. Topic selection

The topic of master dissertation should be directly from the needs of resources utilization and plant protection industry or related enterprises, such as the scientific or practical problems of production, technology, logistic or management issues.

2. Thesis form

The dissertation should reflect the ability and level of graduate students to use knowledge and skills to solve problems. It should have certain innovation and academic reference value. The core research content and results should reach the level that can be published in core journals. In the form of paper, the technical route is clear, the data is reliable, the analysis is reliable, the writing is standard, the writing is fluent, and the chart is clear. The dissertation is required to be completed in both Chinese and English, and the English dissertation will be submitted to Hebrew University. The dissertation writing in Chinese should have no less than 15000 words in the main text.

3. Disser

18.3333px;">tation Review for Academic Master’s Degree Application

Dissertation review shall be conducted one and a half months before the dissertation defense. The Dissertation secretary, designated by the student’s School, shall be responsible for the delivery of dissertation as well as collection and feedback of review comments and results, while the author of the dissertation shall not participate in the process.

4. Dissertation Defense of Academic Master student

After the dissertation has been reviewed, revised and improved according to the comments/suggestions from the reviewers, and finalized after approval by the supervisor, the master students who have satisfy the publication requirements as prescribed by the School may apply for the oral defense. He/she shall submit a defense application to the discipline, which should be approved by the supervisor, the discipline and the School. Thesis defense shall be completed within the maximum study duration, and shall not be accepted beyond the time limit.

The discipline employs 5 peer experts with senior professional title (including senior professional title experts with master’s degree training qualification) to form the Defense Committee (5 peer experts must form the Defense Committee for the application of master’s degree with the same academic ability, including 1 out of school expert outside the applicant’s unit). The chairman of the defence committee shall be a professor level expert. The supervisor of the master student may not serve as a member of the committee.

The dissertation defense shall follow the principles of “upholding the standards, ensuring the quality, and being just and reasonable”, and shall be executed according to related regulations.

The final conclusion of the dissertation defense shall be drawn from the secret ballot of the defense committee. If the number of affirmative votes exceeds 2/3 of the number of the committee members, the defense is seen as passed. The master student is recommended for the conferral of a Master’s degree, which shall be submitted to the Academic Degree Evaluation Committee of the School for approval. If the number of affirmative votes is less than 2/3 of the number of the committee members, the defense will be seen as failed. Those who fail to pass the defense may supplement and modify the thesis within one year (not exceeding the prescribed maximum study period), and reply again according to the above principles.

九、课程设置 Courses

详见下页 Please refer to the next page.

撰稿人签字： 日 期：

校稿人签字： 日 期：

审核人签字： 日 期：

主管院长签字： 院系公章 日期：

课程类别 Category	课程代码 Course Code	课程名称 Course Name		学分 Credit	授课语言 Language	开课学期 Semester	是否必修 Compusory	可以计算GPA	必须计算GPA	备注 Note	多选组 Course Group
		中文Chinese	English 英文								
公共基础课 General Fundamental Courses	FL6001	学术英语	English for Academic Purposes	2	英文	秋季	是	是	是		
	MARX6001	新时代中国特色社会主义理论与实践	Theory and Practice of Socialism with Chinese Characteristics in the New Era	2	中文	春季	是	是	是		
	MARX6003	自然辩证法概论	Introduction to Dialectics of Nature	1	中文	春季	是	是	是		
	GE6001	学术写作、规范与伦理	Scientific Writing, Integrity and Ethics	1	中英并行开班	春秋季	是	是	是		
专业基础课 Program Core Courses	STAT6001	基础数理统计	Fundamental Mathematical Statistics	3	中文	春秋季	是	是	是		最少1门、最低3分
	STAT6002	生物数学（I）	Biology Mathematics I	3	中文	春秋季	是	是	是		最少1门、最低3分
	AGRI6008	高级植物栽培生理学	Advanced Physiology of Plant Cultivation	2	中文	秋季	否	是	否		
	AGRI6025	农业推广理论与实践	Theory and Practice of Agricultural Popularization	2	中文	秋季	否	是	否		
	AGRI6027	现代农业创新与乡村振兴战略	Modern Agricultural Innovation and Rural Revitalization Strategy	2	中文	秋季	是	是	是		
	AGRI6038	植物微生物学	The Plant Microbiome	2	英文	秋季	否	是	否	只能在希伯来大学校区选课修读	
	AGRI6039	全球变化的生物学和生态学	Biology and Ecology of Global Change	3	英文	秋季	否	是	否	只能在希伯来大学校区选课修读	
	ECOL6001	高级植物病理学	Advanced Plant Pathology	2	中文	秋季	否	是	否		
	ECOL6004	土壤生态学	Soil Ecology	2	中文	秋季	否	是	否		
	ECOL6008	生态学研究方法	Research Methodology for Ecology	2	中文	秋季	否	是	否		
	GE6003	实验室安全教育	Laboratory Safety Education	0.5	中文	秋季	是	否	否		
	ECOL6002	生态毒理学	Ecotoxicolgy	2	中文	春季	否	是	否		
	ECOL8012	现代植物检疫原理与新技术	New Technologies and Principle Of Plant Quarantine	2	中文	春季	否	是	否		
	GE8001	专业实践	Professional Practice	1	中文	春秋季	是	否	否		
	AGRI6040	当代植物生理学研究方法	Contemporary Approaches to Plant Physiology	2	英文	夏季	是	是	是	希伯来大学授课	
	AGRI6041	作物采后生理和病理	Physiology and Pathology of Postharvest Crops	2	英文	夏季	是	是	是	希伯来大学授课	
专业前沿课 Program Frontier Courses	AGRI8001	园艺科学进展	Advance in Horticulture	2	中文	秋季	否	是	否		
	AGRI8026	细菌生理与分子生物学	Physiology & Molecular Biology of Bacteria	3	英文	秋季	否	是	否	只能在希伯来大学校区选课修读	
	ECOL8011	现代生态学	Modern Ecology	2	中文	秋季	否	是	否		
	AGRI8010	农业气象学和蒸散：理论与实践	Agricultural Meteorology and Evapo-transpiration: Theory and Practice	2	英文	春季	是	是	是	希伯来大学授课	
	AGRI8023	环境友好型草业管理	Environmental Friendly Weed Management-principles and Application	2	英文	春季	否	是	否	只能在希伯来大学校区选课修读	
	AGRI8024	植物生态学高级技术与方法	Advanced Approaches and Methods in Plant Ecology	3	英文	春季	否	是	否	只能在希伯来大学校区选课修读	

专业前沿课 Program Frontier Courses	AGRI8025	新陈代谢的进化	Evolution of Metabolism	2	英文	春季	否	是	否	只能在希伯来大学校区选课修读	
	AGRI8032	植物细胞间的通讯与长距离通讯	Cell-to Cell and Long-Distance Communication in Plants	2	英文	春季	是	是	是	希伯来大学授课	
	AGRI8033	高级实验设计与数据分析	Advanced Design of Experiments and Data Analysis	2	英文	春季	是	是	是	希伯来大学授课	
	ECOL6006	现代微生物生态学	Modern Microbial Ecology	2	中文	春季	否	是	否		
	ECOL6007	信息技术在农业环境中的应用	Application of Information Technology in Agriculture	2	中文	春季	否	是	否		
	ECOL8003	分子植物病理学	Molecular Phytopathology	2	英文	春季	否	是	否		
	ECOL8004	可再生能源工程	Renewable Energy Engineering	2	英文	春季	否	是	否		
	ECOL8010	污染生态修复技术	Ecological Restoration Technology in Pollution Control	2	中文	春季	否	是	否		
	GE6012	学术报告与研讨会	Academic Seminars	2	中文	春季	是	否	否		
	AGRI8022	基因工程与昆虫生物技术	Genetic Engineering & Insect Biotechnologies	2	英文	春秋季	否	是	否	只能在希伯来大学校区选课修读	
专业选修课 Program Elective Courses	AGRI6005	生物统计软件应用	Application of Statistical Analysis System	2	中文	秋季	否	是	否		
	AGRI8027	森林生态学	Forest Ecology	3	英文	秋季	否	是	否	只能在希伯来大学校区选课修读	
	AGRI8029	除草剂的作用方式	Mode of Action of Herbicides	2	英文	秋季	否	是	否	只能在希伯来大学校区选课修读	
	ECOL8005	农业生态学	Agticultural Ecology	2	中文	秋季	否	是	否		
	ECOL8015	植物病理学专题	Phytopathology Club	2	中文	秋季	否	是	否		
	HORT7005	植物生物技术大实验	Practice of Plant Biotechnology	3	中文	秋季	否	是	否		
	AGRI8021	农业生态学与植物健康	Biological Pest Control	2	英文	春季	否	是	否	只能在希伯来大学校区选课修读	
	AGRI8028	植物病原病毒学	Viruses as Plant Pathogens	2	英文	春季	否	是	否	只能在希伯来大学校区选课修读	
	AGRI8030	空间保育的生态学原理	Ecological Principles in Spatial Conservation	2	英文	春季	否	是	否	只能在希伯来大学校区选课修读	
	ECOL8006	生态学专题	Special Topic of Ecology	2	中文	春季	否	是	否		
	ECOL8007	生物农药	Biopesticide	2	中文	春季	否	是	否		
	ENVR6011	气候灾害的全球变化原理	Global Change Principle of Climate Disaster	2	中文	春季	否	是	否		
	PVET8007	现代仪器分析技术	Modern Instrument Analysis Method	2	中文	春季	否	是	否		

资源利用与植物保护(095132)全日制硕士培养方案（专硕）

Resources Utilization and Plant Protection

一、基本信息 Basic Information

院系名称 School	(150)农业与生物学院 School of Agriculture & Biology			适用年级 Grade	2024
适用专业 Major	资源利用与植物保护(095132) Resources Utilization and Plant Protection				
项目类型 Program Type	全日制硕士				
最低学分 Min Credit	30	最低GPA学分 Min GPA Credit	18	最低GPA Min GPA	2.7

二、学科简介 Introduction

资源利用与植物保护学科主要依托生态学科建设。上海交通大学生态学学科2003年获硕士学位授予权，2005年获博士学位授予权，2011年获一级学科博士点，同年设立博士后流动站。

生态学是研究生物与其环境之间相互关系的学科，主要目的是保护和利用生物多样性，防控有害生物，维持自然生态系统的安全性，人与生物圈的协调性，现代经济发展的高效性和可持续性，从而实现人类社会的健康绿色发展。现代生态学的研究尺度进一步向微观和宏观两个方面发展，如分子生态学和全球生态学。近几十年来，生态学还注重学科交叉和实际应用，正越来越紧密地与社会经济发展相结合，并服务于生产实践，成为一门多学科交叉应用性强的基础学科。无论是针对全球生态安全，区域生态文明建设，还是生态经济管理和工程等方面，生态学都具有更迫切的需求和更广阔的前景。

学科在都市农业生态与生境控制、作物生态与有害生物防控、乡村环境生态与生物质能源工程、城乡生态与区域规划管理等研究方向上形成了明显的特色和优势。学科专任教师队伍年龄、职称、学科背景结构合理，100%具有博士学位、90%具海外经历。建有国家级长三角区域生态环境变化与综合治理野外科学观测研究站、国家新农村发展研究院、农业农村部都市农业重点实验室、教育部农林实践基地、交大-以色列希伯来大学现代农业联合研究中心、康奈尔大学课程中心。与美国、芬兰、日本等国家的10多个知名学校和科研机构建立了良好的联合培养、学术交流和学生交换等国际合作关系。学科实施基地团队项目一体化，教学与科研综合实力达到国际先进水平，交叉引领创新能力强。100%专任教师主持国家自然基金、重点研发计划等国家级项目，科研经费充足，省部级及以上科研奖项多项，种养殖耦合、木霉菌生防、生物滤池、稻蛙共生等一批创新性成果得到产业化应用示范，年均专利转化 5件以上，效益显著。

Resources Utilization and Plant Protection disciplines mainly rely on the construction of Ecology disciplines. In 2003, Shanghai Jiaotong University obtained the right to confer master's degree in ecology, the right to confer doctor's degree in 2005, the right to confer doctor's degree in primary discipline in 2011, and the post doctoral mobile station was established in the same year.

Ecology is a discipline that studies the relationship between organisms and their environment. Its main purpose is to protect and utilize biodiversity, prevent and control harmful organisms, maintain the safety of natural ecosystem, the coordination between human and biosphere, and the efficiency and sustainability of modern economic development, so as to realize the healthy and green development of human society. The research scale of modern ecology further develops to micro and macro aspects, such as molecular ecology and global ecology. In recent decades, ecology also pays attention to interdisciplinary and practical application, is more and more closely combined with social and economic development, and serves for production practice, becoming a multi-disciplinary interdisciplinary application of strong basic disciplines. Whether it is for global ecological security, regional ecological civilization construction, or ecological economic management and engineering, ecology has more urgent needs and broader prospects.

The discipline has formed obvious characteristics and advantages in urban agricultural ecology and habitat control, crop ecology and pest control, rural environmental ecology and biomass energy engineering, urban and rural ecology and regional planning and management. The age, title and background of full-time teachers are reasonable. 100% of them have doctor's degree and 90% have overseas experience. There are national scientific observation and research station of Yangtze River Delta ecological environment change and management, National New Rural Development Research Institute, Key Laboratory of urban agriculture of Ministry of agriculture and rural areas, agriculture and forestry practice base of Ministry of education, modern agriculture joint research center of JiaoTong University Israel Hebrew University and Curriculum Center of Cornell University. It has established good international cooperation relations with more than 10 well-known schools and scientific research institutions in the United States, Finland, Japan and other countries, such as joint training, academic exchange and student exchange. The project integration of the discipline implementation base team, the comprehensive strength of teaching and scientific research has reached the international advanced level, and the ability of cross leading innovation is strong. 100% of the full-time teachers presided over national projects such as National Natural Science Foundation of China and key R &D programs, with sufficient scientific research funds, a number of scientific research awards at provincial and ministerial level and above, and a number of innovative achievements such as breeding coupling, Trichoderma biocontrol, biofilter, rice frog symbiosis have been industrialized applied and demonstrated, with an average annual patent conversion of more than 5, with remarkable benefits.

三、培养目标 Program Objective

1.专业基础

旨在为资源环境治理、土壤肥料、植物保护领域相关行政部门、行业与企事业单位、新型农业经营主体等培养精技术、懂经营、会管理的应用型、复合型高层次职业技能人才。了解国内外资源利用与植物保护学的理论与技术发展趋势；具有资源利用与植物保护学专业素养和解决生产问题的专业技能；基本具备独立从事本专业教学、科研、技术研发以及工程管理的能力。

2.专业技能

获取知识的能力。有能力获得在资源利用与植物保护学领域开展研究所需背景知识，具有较好的资源利用与植物保护学与相关交叉学科专业基础、计算机水平及外语水平，有能力对现有知识进行利用和扩充，有指导学生的能力。

科学研究能力。能

在某一专门资源利用与植物保护学领域获得较强的专业能力，能够为解决某一科学问题而设计和实施科学研究方案调查或实验，能对所获得的研究结果进行合理分析和客观评价。掌握相关研究方法和实验技术。能准确表述研究结果，并能够发表在国内外专业期刊上。

实践能力。具有较强的实地调查、观测和科学研究动手能力，有较好的独立工作能力，具备良好的团队合作能力。

学术交流能力。基本具备中外文学术交流的基本能力，包括条理清楚地演讲、写作和符合逻辑的辩论等。

1. Basic knowledge

Aims to cultivate talents with outstanding techniques, management skills, pracitical ablitites and interdisciplinary capabilities, for the administration department,industry, enterprise and public institution, and new agriculture body in the area of resource and environmental governance, soil fertilizers and plant protection.Understand the theory and technology development trend of resources utilization and plant protection at home and abroad; have the professional quality of resources utilization and plant protection and the professional skills to solve production problems; basically have the ability to independently engage in the teaching, scientific research, technical research and development of this major, as well as the engineering management.

2. Academic ability

The ability to acquire knowledge. Ability to acquire the background knowledge needed for research in the field of resources utilization and plant protection, have a good professional foundation of resources utilization and plant protection and related interdisciplinary

disciplines, computer level and foreign language level, have the ability to use and expand existing knowledge, and have the ability to guide students.o:p

Scientific research ability. Can obtain strong professional ability in a special field of resources utilization and plant protection, can design and implement scientific research plan investigation or experiment for solving a scientific problem, can reasonably analyze and objectively evaluate the research results. Master relevant research methods and experimental techniques. Can accurately express the research results, and can be published in professional journals at home and abroad.o:p

四、培养方式及学习年限 Training Mode and Study Duration

1.学习年限

一般为2.5年。最短学习年限一般不少于2年，最长可延长1学年。

2.培养方式

硕士研究生的日常培养工作实行导师负责和导师组培养相结合的办法。导师与导师组在新生入学后2周内指导硕士研究生制定切实可行的培养计划。并在培养期间完成培养方案规定的课程学习、科学研究、专业实践和论文撰写等工作。

1. Study duration

The basic study duration of the Master degree programs normally is two and a half years. In general, the study duration of Master students should be no less than 2 years. And the study duration can be extended 1 year to the maximum.

2. Training of Master Degree Students

The program curriculum for professional master degree program should follow the requirements of the corresponding Steering Committee for Professional Degree Education and the regulations of the University.

The supervisor and the supervising group are jointly responsible for the training of the Master student. The supervisor and the supervising group will guide the Master student to develop a feasible and tailored training plan within the first 2 weeks after enrollment. The Master students shall complete the coursework, scientific research, professional practice, thesis work and other work as specified in the program curriculum.

五、课程学习要求 Course Requirement

课程类别 Course Type	学分要求 Min Credits	GPA 学分要求 Min GPA Credit	备注 Note
公共基础课 General Fundamental Courses	6	6	
专业基础课 Program Core Courses	0		
专业前沿课 Program Frontier Courses	0		

专业选修课 Program Elective Courses	0		

六、培养过程要求 Training Requirement

1.开题报告

硕士生学位论文开题在第二学年第一学期结束前完成。基本完成培养计划中规定的课程学习并成绩合格，GPA满足培养方案要求。专家小组至少由3名相关学科具有硕士研究生指导资格的专家对开题报告进行论证。首次学位论文开题未通过的，可在下一学期再次申请开题；两次论文开题均未通过的，由开题报告专家组作出应予退学处理建议。

2.中期检查

完成培养计划中规定的全部课程学习并成绩合格；GPA不低于2.7；学位论文开题已通过。中期检查应在学位论文送审前3个月进行，主要内容包括：研究生课程学习完成情况、论文工作进展情况、个人总结、导师评价以及考核小组面试评审等。专家小组由3名以上相关学科具有硕士研究生指导资格的专家组成的专家组对学生报告进行答辩评审。中期检查的结果按“通过”或“不通过”记载。中期检查不通过的硕士研究生，应给予警告，并要求其给出改进措施，上报给所在院系。经整改可于下一学期再次进行中期检查，2次中期检查不通过者，由专家组作出应予退学处理建议。

3.专业学位研究生项目须列出专业实践要求；

结合资源利用与植物保护学科特色，利用校企优势互补，共建校内、校外实践基地；建设、配备一支数量稳定、实践经验丰富的实践教学师资队伍，保障专业实践按计划、规范化开展。专业学位硕士研究生的培养实行校内外双导师共同指导的方式，以校内导师指导为主，校外导师参与实践过程、项目研究和论文等多个环节的指导工作。专业学位硕士研究生的课程教学要加强案例教学、实践（现场）教学、模拟训练等教学方法的运用，突出专业学位硕士研究生实践研究和技术创新能力的培养，强化对专业学位硕士研究生运用所学基本知识和技能解决实际问题的能力和水平的考核。专硕在学期间，必须保证不少于半年的专业实践教学，获取专业实践课程的学分。

1. Thesis proposal of master student

The master degree thesis proposal should generally be carried out before the end of the first semester of the second academic year. The students shall complete all the courses as specified in the training plan and pass the exams, the GPA should meet the requirement of program curriculum. The committee of at least three master supervised experts in the related discipline should evaluate the thesis

proposal reports. The students who failed to pass the evaluation at the first time could apply for a second chance. The committee should give a suggestion of drop out of schooling to whom failed at the re-assessment.

2. Mid-term assessment of master student

The students shall complete all the courses as specified in the training plan and pass the exams, the GPA should be no less than 2.7. And also the students have passed thesis proposal assessment. Mid-term assessment should be completed at least 3-month in advance of thesis review. The assessment shall include a review of course completion, the progress of the thesis, personal progress summary, evaluation by the supervisor, and an oral presentation to the assessment committee.A Mid-term assessment committee of at least three master supervised experts should organize a defense assessment of student's mid-term report. The results of the assessment shall be marked as passed/failed.The master student whose mid-term assessment failed to pass shall be warned, and be requested to submit a corrective action report. Those who have improved their mid-term reports can participate in a re-assessment in the next semester.

七、学术成果要求 Requirement on Academic Achievements

硕士研究生应从事资源利用与植物保护学科培养目标相应的科学研究，并取得一定的创新性成果，达到国内一流学科硕士学术水平。鼓励在学期间以第一作者在国内外学术刊物上发表与学位论文内容相关的高水平学术论文，毕业要求遵照上海交通大学和农业与生物学院的规定。答辩之前，学位论文需通过同行评审。

Master student should achieve the first-class discipline master academic level in China, and academic achievements should be in accordance with the graduation requirements of Shanghai Jiao Tong University and the School of Agriculture and Biology. Master student should be engaged in scientific research corresponding to the training objectives of resources utilization and plant protection discipline, and achieve certain innovative results. Master student are encouraged to publish high-level academic papers related to the contents of dissertation in domestic and foreign academic journals as the first author. Before applying for defense, dissertation must pass peer review.

八、学位论文 Thesis/dissertation work

1.论文选题

选题应来源于资源利用与植物保护产业的实际需求，是某一区域相关产业或科技型企业发展中急需解决的生产、技术、流通或管理等领域的具体命题。

margin-left:45.0pt;margin-bottom:.0001pt;mso-para-margin-top:.5gd;mso-para-margin-right:
0cm;mso-para-margin-bottom:0cm;mso-para-margin-left:45.0pt;mso-para-margin-bottom: .0001pt;text-indent:-21.0pt;mso-list:l0 level1 lfo1">2.论文形式

学位论文应反映研究生综合运用知识技能解决问题的能力和水平，应具有一定的创新性和学术参考价值，核心研究内容及其结果达到可在核心期刊上发表的水平。以论文形式表现，技术路线清楚，数据可信，分析可靠，书写规范，文字流畅，图表清晰。

3.论文送审

学位论文评审一般于答辩前一个半月进行，学位论文的派送、评审意见与结果的回收汇总和反馈，由所属学科指定答辩秘书负责，论文作者不得参与。

1.Topic selection

The topic of master dissertation should be directly from the needs of resources utilization and plant protection industry or related enterprises, such as the scientific or practical problems of production, technology, logistic or management issues.

2.Thesis form

The dissertation should reflect the ability and level of graduate students to use knowledge and skills to solve problems. It should have certain innovation and academic reference value. The core research content and results should reach the level that can be published in core journals. In the form of paper, the technical route is clear, the data is reliable, the analysis is reliable, the writing is standard, the writing is fluent, and the chart is clear.

3.Dissertation Review for Academic Master’ s Degree

Application

Dissertation review shall be conducted one and a half months before the dissertation defense. The Dissertation secretary, designated by the student’ s School, shall be responsible for the delivery of dissertation as well as collection and feedback of review comments and results, while the author of the dissertation shall not participate in the process.

4.Dissertation Defense of Academic Master student

九、课程设置 Courses

详见下页 Please refer to the next page.

撰稿人签字： 日 期：

校稿人签字： 日 期：

审核人签字： 日 期：

主管院长签字： 院系公章 日期：

课程类别 Category	课程代码 Course Code	课程名称 Course Name		学分 Credit	授课语言 Language	开课学期 Semester	是否必修 Compusory	可以计算GPA	必须计算GPA	备注 Note	多选组 Course Group
		中文Chinese	English 英文								
公共基础课 General Fundamental Courses	FL6001	学术英语	English for Academic Purposes	2	英文	秋季	是	是	是		
	MARX6001	新时代中国特色社会主义理论与实践	Theory and Practice of Socialism with Chinese Characteristics in the New Era	2	中文	春季	是	是	是		
	MARX6003	自然辩证法概论	Introduction to Dialectics of Nature	1	中文	春季	是	是	是		
	GE6001	学术写作、规范与伦理	Scientific Writing, Integrity and Ethics	1	中英并行开班	春秋季	是	是	是		
专业基础课 Program Core Courses	STAT6001	基础数理统计	Fundamental Mathematical Statistics	3	中文	春秋季	是	是	是		最少1门、最低3分
	STAT6002	生物数学（I）	Biology Mathematics I	3	中文	春秋季	是	是	是		最少1门、最低3分
	AGRI6008	高级植物栽培生理学	Advanced Physiology of Plant Cultivation	2	中文	秋季	否	是	否		
	AGRI6025	农业推广理论与实践	Theory and Practice of Agricultural Popularization	2	中文	秋季	否	是	否		
	AGRI6027	现代农业创新与乡村振兴战略	Modern Agricultural Innovation and Rural Revitalization Strategy	2	中文	秋季	是	是	是		
	ECOL6001	高级植物病理学	Advanced Plant Pathology	2	中文	秋季	否	是	否		
	ECOL6004	土壤生态学	Soil Ecology	2	中文	秋季	否	是	否		
	ECOL6008	生态学研究方法	Research Methodology for Ecology	2	中文	秋季	否	是	否		
	GE6003	实验室安全教育	Laboratory Safety Education	0.5	中文	秋季	是	否	否		
	ECOL6002	生态毒理学	Ecotoxicolgy	2	中文	春季	否	是	否		
	ECOL8012	现代植物检疫原理与新技术	New Technologies and Principle Of Plant Quarantine	2	中文	春季	否	是	否		
	GE8001	专业实践	Professional Practice	1	中文	春秋季	是	否	否		
专业前沿课 Program Frontier Courses	AGRI8001	园艺科学进展	Advance in Horticulture	2	中文	秋季	否	是	否		
	ECOL8011	现代生态学	Modern Ecology	2	中文	秋季	否	是	否		
	ECOL6006	现代微生物生态学	Modern Microbial Ecology	2	中文	春季	否	是	否		
	ECOL6007	信息技术在农业环境中的应用	Application of Information Technology in Agriculture	2	中文	春季	否	是	否		
	ECOL8003	分子植物病理学	Molecular Phytopathology	2	英文	春季	否	是	否		
	ECOL8004	可再生能源工程	Renewable Energy Engineering	2	英文	春季	否	是	否		
	ECOL8010	污染生态修复技术	Ecological Restoration Technology in Pollution Control	2	中文	春季	否	是	否		
	GE6012	学术报告与研讨会	Academic Seminars	2	中文	春季	是	否	否		
专业选修课 Program Elective Courses	AGRI6005	生物统计软件应用	Application of Statistical Analysis System	2	中文	秋季	否	是	否		
	ECOL8005	农业生态学	Agticultural Ecology	2	中文	秋季	否	是	否		
	ECOL8015	植物病理学专题	Phytopathology Club	2	中文	秋季	否	是	否		
	HORT7005	植物生物技术大实验	Practice of Plant Biotechnology	3	中文	秋季	否	是	否		
	ECOL8006	生态学专题	Special Topic of Ecology	2	中文	春季	否	是	否		
	ECOL8007	生物农药	Biopesticide	2	中文	春季	否	是	否		
	ENVR6011	气候灾害的全球变化原理	Global Change Principle of Climate Disaster	2	中文	春季	否	是	否		
	PVET8007	现代仪器分析技术	Modern Instrument Analysis Method	2	中文	春季	否	是	否		