

International M.S. Program of Animal Science

Program Code: 090500

(Course conducted in English)

Training Target

The college is intended to develop high-level talents with noble ideological and moral character, rigorous attitude towards knowledge, realistic and innovative spirit, and good professional ethics; to possess solid scientific theory, broad and professional knowledge, strong ability to solve practical problems; to be able to independently undertake scientific research, teaching and production technology management.

1. Professional Competence Master solid basic theory of animal science and systematic professional knowledge and practical skills. Be familiar with the history, current situation and domestic and international development trends of the discipline; Be able to proficiently apply the basic research techniques and methods in the field of animal science; Be able to skillfully use computers and advanced equipment; Good command of Chinese language, able to read Chinese literature proficiently, and have certain Chinese listening, speaking and writing ability; Independently competent in scientific research, teaching, business and technical management of the disciplines of animal husbandry and grassland science.

2. Academic Literacy and Competence Have innovative and entrepreneurial spirit; Master experimental methods, skills and data processing skills in a certain field of the discipline; Equip with team spirit and ability to work honestly; Have a strong ability to raise questions, analyze and solve problems; Have certain insight and knowledge acquisition ability; Have strong technical development, technical experiment and other practical ability; Have strong practical ability of technology development and experiment; Possess the ability of applying computers; Good at communication and cooperation with others, abide by academic ethics and norms.

3. Physical Condition Have a healthy body and good psychological quality.

Research Orientation

In the field of animal husbandry and in accordance with the needs of the economic construction of their home countries and taking into account their own interests, master candidates may independently choose the secondary disciplines of Animal Genetics, Breeding and Reproduction Science, Animal Nutrition and Feed Science in animal husbandry. At the time of enrollment, students can register in the first or the second level of their choice according to the record of the university in the national degree.

1. Animal Genetics, Breeding and Reproduction Science : To analyze the genetic diversity of livestock and poultry by using animal genetic breeding and genetic marker technology; To study the principles and technologies of evaluation, protection, development and utilization of animal genetic resources; To solve practical problems in animal breeding by using quantitative genetics theory; To study the mechanism of reproductive physiology regulation of livestock and poultry, and improve animal reproductive performance by using new technology; To study the principle and application of animal embryo segmentation, embryo transfer, nuclear transfer, gametes and embryo engineering.

2. Animal Nutrition and Feed Science : To study the mechanism and regulation methods of digestion, absorption and metabolism of nutrients in livestock and poultry, the metabolism of micro-ecological nutrients in animal gastrointestinal tract and their utilization at cellular and molecular levels, the relationship between nutrition and animal production performance, the nutrition characteristics of feed resources, the development and utilization of new feed resources and the technical measures to improve the utilization ratio of various feed resources; The production, processing and quality control technology of pollution-free animal products are studied by using modern detection technology.

Research Duration

The research duration is generally 3 years, and the maximum at school is no more than 5 years

(including suspension).

Cultivation Methods

1. On the basis of the mentor responsibility system, maximize the use of the mentor's collective role.

The tutor is the first person responsible for the cultivation of master students, and is responsible for guiding the formulation of personal training plans, clarifying elective courses, determining the research direction and thesis topic selection, guiding the completion of the dissertation, and so on. The tutor should organize a steering group to care and guide the master students based on the actual situation.

2. Equal emphasis on curriculum learning and scientific research

Focus on curriculum learning and scientific research in the cultivation of the master of animal husbandry, for example, the arrangement of scientific courses, social practice, scientific research, academic exchanges, etc. In terms of scientific research, strengthen the cultivation of the pragmatic style of study, diligent spirit, independent work ability and innovative ability of master students. Encourage cross-training with veterinary science, biological science, food science and other disciplines. During the learning process, multiple platforms create conditions to encourage students to go to other universities and research institutes for joint training and academic exchanges, broaden their academic horizons, and invigorate academic thinking.

3. Strengthen interdisciplinary and integration

Maximize the use of the mentor's guidance, take advantage of the collective guidance of the entire academic group, especially the Program for Master degree of Echelon. Encourage, support and promote cross-disciplinary and cross-professional training methods. In order to further expand the knowledge of master students and improve the ability of master students to independently conduct scientific research; encourage the adoption of joint training with domestic and foreign peer scholars or academic research institutions.

Curriculum and Credit Requirements

The course is based on credit system. The total credits should not be less than 32 credits. Among them, no less than 18 credits for degree courses; no less than 2 credits for elective courses, including no less than 2 credits for interdisciplinary courses; no less than 2 credits for academic activities.

Required Courses of Master Degree

课程类别 Course Category		课程名称 Topic	学分 Credit	学期 Semester	备注 Notes
学位课程 Degree Courses	公共基础课 General	综合汉语 Comprehensive Chinese	2	秋学期 Fall	必修 Required
		中国概况 Introduction to China	3	秋学期 Fall	
		实用汉语 Applied Chinese	2	春学期 Spring	
	学科基础课 Major	现代分子生物学 Modern Molecular Biology	2	秋学期 Fall	
		畜牧学研究进展 Main Research Progress of Animal Science/Husbandry	3	秋学期 Fall	
	专业基础课 Core	动物遗传育种与繁殖专题 Topics of Animal Genetics, Breeding and Reproduction Science	3	秋学期 Fall	
		动物营养与调控专题 Topics of Animal Nutrition and Regulation	3	春学期 Spring	
非学位课程 Non-degree Courses	专业选修课 Elective	生物统计与实验设计* Biostatistics and Experiment Design*	2	秋学期 Fall	*为跨学科课程 * is an interdisciplinary course
		动物遗传育种与繁殖研究进展 Lecture of Animal Genetics, Breeding and Reproduction Science	2	秋学期 Fall	
		动物营养与调控专题研究进展 Lecture of Animal Nutrition and Regulation	2	春学期 Spring	
		分子生物学实验技术 Experiment Technique in Molecular Biology	2	春学期 Spring	
		动物营养实验技术 Experiment Technique in Animal Nutrition	2	春学期 Spring	
补修课程 Remedial course	本科阶段补修课程 Undergraduate	动物遗传学 Animal Genetics	0	春学期 Spring	不计学分 Non-credit
		动物繁殖学 Animal Reproduction	0	春学期 Spring	

	remedial course	动物营养学 Animal Nutrition	0	春学期 Spring	
		畜产品加工学 Livestock Products Processing	0	春学期 Spring	
农场培训 Farm Training			3	春学期 Spring	必修 Required
学术活动 Academic Actives			2		必修 Required
总学分 Total			32	≥32	