

Master of Animal Science by Distance Education

The Department of Animal Science at N. C. State University is proud to offer its Master of Animal Science through Distance Education.

Many of the required courses for the MAS are presently available as Distance Education options, with new courses each semester

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The **Master of Animal Science by Distance Education** program has the exact same requirements as the traditional “on campus” MAS program. The difference is that the majority (if not all) of your courses will be taken online through distance education.

The **requirements for application** and acceptance to the MAS-DE program are the same as for the MAS program. Specifically:

- No Graduate Record Exam (GRE) is required
- A competitive GPA is required (>3.0)
- Undergraduate degree in Animal Science or related field. You should have some of these core courses as prerequisites:
 - Physiology
 - Chemistry and Biochemistry
 - Genetics

For information about application and tuition, please visit:
<http://distance.ncsu.edu>

For information about the Department of Animal Science, please visit:

http://www.cals.ncsu.edu/an_sci/home/home.html

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PROGRAM REQUIREMENTS

Currently, not all courses are available by distance education; therefore you may be limited in your course selection choices. Below are the courses required, and their availability by distance education (shown in **RED**). Please confirm semester offerings and availability with the course catalog (www.distance.ncsu.edu/courses/)

The program requires a minimum of 36 credit hours.

CORE COURSES (19 credits)

Credits	Course Number	Course Title
1	ANS 603/ ANS 604/ NTR 601	Graduate Seminar (Respectively: Reproductive Physiology, Animal Breeding and Genetics, Nutrition)
3	ST 511	Experimental Statistics for Biological Sciences*

Choose one Biochemistry, Education, Economics or Business Core Courses:

3	AEE 521	Program Planning in Agricultural Extension Education
3	AEE 523	Adult Education in Agriculture
3	AEE 526	Information Technologies in Ag Extension Education
3	BCH 553	Biochemistry of Gene Expression
3	ANS/BCH 571	Nutritional Biochemistry
3	BUS 590B	Management Foundations
3	MBA 554	Project Management
3	ECG 505	Applied Microeconomic Analysis
3	ECG 507	Economics for Managers

Animal Science Discipline Core Courses:

Choose one Genetics:

3	ANS 540	Selection of Domestic Animals
3	ANS 575	Current topics in Genomics and Proteomics

Choose one Nutrition:

3	ANS 550	Applied Ruminant Nutrition
3	NTR 500	Principles of Human Nutrition
3	ANS 571	Nutritional Biochemistry

Choose one Physiology:

3	ANS 530	Advanced Applied Reproductive Physiology
3	ANS 552	Advanced Reproductive Physiology and Biotechnology

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PROGRAM REQUIREMENTS continued...

Credits	Course Number	Course Title
Choose at least one other course from Departmental Electives:		
3	ANS 530	Advanced Applied Reproductive Physiology
3	ANS 550	Applied Ruminant Nutrition
3	ANS 552	Advanced Reproductive Physiology and Biotechnology
3	ANS 553	Growth and Development of Domestic Animals
3	ANS 554	Lactation, Milk and Nutrition
3	ANS 571	Nutritional Biochemistry
3	ANS 575	Current Topics in Genomics and Proteomics
3	ANS 701	Protein and Amino Acid Metabolism
3	ANS 702	Reproductive Physiology of Mammals
3	ANS 706	Vitamin Metabolism
3	ANS 708	Genetics of Animal Improvement
3	ANS 709	Energy Metabolism
3	ANS 713	Quantitative Genetics and Breeding
3	ANS 764	Advances in Gastrointestinal Pathophysiology
3	ANS 775	Mineral Metabolism
3	ANS 780	Mammalian Endocrinology
3	ANS 785	Digestion and Metabolism in Ruminants
3	ANS 7xx	Linear Models in Biology and Agriculture
3	ANS 5xx	Equine Nutrition
3	ANS 5xx	Advanced Swine Reproductive Management

*This course is not currently available by Distance Education at NCSU. There are several online statistics courses available through other schools that may transfer. STAT 651 from Texas A&M is online and has been approved by the graduate committee to transfer in for ST 511.

ELECTIVE COURSES (+17 credits)

Electives can be selected from departments include Physiology, Nutrition, Zoology, etc.

400 level courses (up to 10 credit hours) from outside ANS (and not cross-listed with ANS) may also be taken as electives.

Some currently available distance education elective courses include:

FM 580 Feed and Ingredient Quality Assurance	AEE 500 Agricultural Education, Schools and Society
NTR 500 Principles of Human Nutrition	AEE 501 Foundations of Agricultural and Extension Education
NTR 501 Advanced Nutrition and Metabolism	AEE 503 Youth Program Management
NTR/PO 515 Advanced Comparative Nutrition	AEE 522 Occupational Experience in Agriculture
NTR 525 Advanced Feed Science and Technology	AEE 526 Information Technologies in Agricultural and Extension Education
NTR 555 Exercise Metabolism	AEE 535 Teaching Agriculture in Secondary Schools
NTR 706 Vitamin Metabolism	AEE 577 Evaluation in Agricultural and Extension Education
TOX 501 Principles of Toxicology	