

Animal and Dairy Sciences

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The Animal and Dairy Sciences program offers graduate study toward the Master of Science (thesis) in Agriculture with a concentration in Animal Science; the Master of Agriculture with a concentration in Animal and Dairy Sciences (non-thesis); and Doctor of Philosophy in Agricultural Sciences with a concentration in Animal Science, Master of Agriculture (non-thesis option), and a Doctor of Philosophy in Agricultural Sciences with a concentration in Animal and Dairy Sciences.

Admission Criteria

A minimum of 3.00 GPA is required for all programs (Master of Science, Master of Agriculture, and Doctor of Philosophy). Individual faculty serving as major professors may have additional requirements for students they advise. Therefore, it is advisable that a prospective student contact faculty with whom he/she is interested in working to determine if they have additional admission requirements. An international applicant is required to have a TOEFL (Test of English as a Foreign Language) score of 575 PBT (84 iBT) or an IELTS (International English Language Testing Systems) score of 7.0 or higher to be considered for admission.

Provisional Admission

An applicant who has not fully met the GPA requirement stipulated by the University may be admitted on a provisional basis. See Provisional Admission Requirements in this *Catalog*.

Academic Performance

The Department of Animal and Dairy Sciences adheres to the academic performance standards of the Graduate School and CALS. Students are referred to these criteria for provisional admission, contingent admission, academic performance, and dismissal policies.

To graduate, the student must complete all University and degree program requirements listed in the *Graduate Catalog* under which they began the program. A graduate student cannot graduate under any of the following circumstances.

1. A GPA lower than 3.00 for all courses attempted for graduate credit after admission to the degree program or
2. A grade of D or lower on the program of study or
3. More than two courses (not exceeding 9 credit hours) with a grade of C or lower earned for all courses since admission into the program, including those outside the program of study* or
4. A U grade in thesis or dissertation research credit in the final semester or
5. A grade of I (Incomplete) on his/her transcript.

*NOTE: The original grade for a course that is retaken will not be included in the 8 hours. However, the original grade is included as part of the calculation of the GPA. See the Course Retake Policy section for additional details.

No graduate courses with pass/fail credit are accepted as part of a graduate program. Grades of pass/fail are not awarded at MSU and cannot be transferred to MSU.

A GPA of 3.00 on the minor coursework is required for students completing a minor.

Stipends

Students who have not met the requirements for full admission to their degree program are not eligible to receive an assistantship. Students with a GPA less than 3.00 or who have been admitted on a provisional/probationary status are not eligible to receive an assistantship. Graduate assistantships provide students a salary for 20 hours of work per week which is NOT part of their own research. These 20 hours per week may be spent on research, teaching, and/or service. The student is also expected to complete work toward their his or her own research IN ADDITION TO their assistantship duties.

Master of Science in Agriculture with Animal Sciences Concentration - Thesis

The program of study is developed by the student and his/her major professor with approval by the student's graduate committee in accordance with Graduate School policy and must include core courses as specified below. In addition to the Graduate School requirements for a master's graduate

committee, the department requires that at least two committee members must be from the Department of Animal and Dairy Sciences. The student must submit an approved program of study and committee request form no later than the end of their second enrolled semester.

For the master's degree in Agriculture with a concentration in Animal Science, the student must have completed or will be required to complete in addition to the graduate coursework, 9 credit hours of animal/dairy sciences courses. All students are required to enroll in Graduate Seminar during their first semester of enrollment. All students are expected to demonstrate a working knowledge of the Animal and Dairy Sciences field. Opportunities to meet this expectation include: audit additional animal sciences courses (below 4000 level), serve as a teaching assistant for Introduction to Animal Science, or attend departmental journal clubs. Students not holding a degree in Animal or Dairy Sciences (or related field) will be required to do at least one of the above, as directed by the major advisor.

Graduate Seminar	2
(ADS 8111, ADS 8121, or ADS 8131 are suggested courses.)	
Statistics	8
(ST 8114 and ST 8214 are suggested courses.)	
Biochemistry	3
(ADS 8333, BCH 6013, BCH 6603, or BCH 6613 are suggested courses.)	
Graduate level coursework ¹	11
ADS 9000	6
Research in Animal and Dairy Science	
Total Hours	30

¹ At least 12 hours of coursework must be taken at the 8000 level.

M.S. thesis candidates are required by the Department of Animal and Dairy Sciences to submit a written and oral proposal of the intended research area approved by their graduate committee no later than the end of their second enrolled semester and submit a final written and oral presentation of the thesis work.

Master of Agriculture with Animal and Dairy Sciences Concentration - Non-Thesis

The Master of Agriculture degree is a non-thesis advanced degree designed to prepare graduates for careers or professional schools. A concentration is selected and students develop a program of study with approval by the student's graduate committee in accordance with Graduate School policy and course requirements for the concentration. Students are required to complete 30 hours of coursework as approved by the graduate committee. At least 12 hours of coursework must be at the 8000-level. Some Directed Individual Study courses, numbered at the 7000 level, may be approved to meet the 8000-level requirement. Not more than 6 hours of graduate credit may be earned in Direct Individual Study courses. The student must submit an approved program of study and committee request form no later than the end of their second enrolled semester. Students will also have to develop a comprehensive final report or creative component. This report will cover a current issue to be addressed, or an opportunity to be seized related to animal agriculture on a topic of their choice under the approval of the graduate advisory committee. The program is offered on the Starkville Campus and through the Center for Distance Education.

Graduate Seminar	1
(ADS 8111 [repeatable] is suggested course.)	
ADS 8441	1
Journal Club: Evaluation of Current Published Work in Animal and Dairy Sciences	
Statistics	3
See graduate coordinator for a list of approved courses	
Biochemistry	3
(ADS 8333, BCH 6013, BCH 6603, or BCH 6613 are suggested courses.)	
Directed Individual Study	3
Graduate-level coursework within the Department of Animal and Dairy Sciences	13
(ADS 6523, ADS 6553, ADS 6633, ADS 8133, ADS 8153, ADS 8162, ADS 8243, and ADS 8533 are suggested courses)	
Graduate level coursework outside the Department of Animal and Dairy Sciences	6
See graduate coordinator for a list of approved courses	
Total Hours	30

Doctor of Philosophy in Agricultural Sciences with Animal and Dairy Science Concentration

The program of study is developed by the student and his/her major professor with approval by the student's graduate committee in accordance with Graduate School policy and must include core courses as specified below. In addition to the Graduate School requirements for a Ph.D.'s graduate

committee, the department requires that at least two committee members be from the Department of Animal and Dairy Sciences. The student must submit an approved program of study and committee request form no later than the end of their second enrolled semester.

Completion of a Ph.D. requires substantial academic work in the field or program of interest beyond the bachelor's level and includes both formal coursework and research (dissertation credit hours). Mississippi State University requires doctoral students earn at least 54 hours of graduate credit beyond the bachelor's level, which includes a required 20 hours of dissertation credits. Of the 54 hours, at least 24 must be from GPA-graded graduate coursework with a minimum of 12 credit hours at the 8000 level or higher (excluding dissertation research credits), and at least 20 dissertation research credits. The remaining 10 hours can be earned with coursework credits, dissertation/research credits, or a combination of both. A student could be required to take additional hours, including dissertation credit hours, as well as permit previous graduate degree coursework in the field to contribute to that total. Program of study courses must be approved by the student's committee. A student may be required to take an ESL, LSK, or undergraduate course, but these courses or audited courses cannot be included on a program.

For the Ph.D. degree in Agriculture with a concentration Animal and Dairy Sciences, the student must have completed or will be required to complete in addition to the graduate coursework, 9 credit hours (4000 level or above) of animal/dairy sciences courses. These 9 credit hours must include at least one course in breeding, nutrition, or reproduction and at least one course in a species-specific production system. All students are expected to demonstrate a working knowledge of the Animal and Dairy Sciences field. Opportunities to meet this expectation include: audit additional animal sciences courses (below 4000 level), serve as a teaching assistant for Introduction to Animal Science, or attend departmental journal clubs. Students not holding a degree in Animal or Dairy Sciences (or related field) will be required to do at least one of the above, as directed by the major advisor.

Ph.D. candidates are required by the Department of Animal and Dairy Sciences to submit a written and oral proposal of the intended research area approved by their graduate committee no later than the end of their second enrolled semester and submit a final written and oral presentation of the dissertation.

For a Ph.D. candidate, an oral and written preliminary/comprehensive examination will be administered by the student's graduate committee in accordance with Graduate School policy prior to the submission or defense of dissertation research.

Graduate Seminar	3
(ADS 8111, ADS 8121, or ADS 8131 are suggested courses.)	
ADS 9000 Research in Animal and Dairy Science	20
GPA-graded graduate coursework at least 12 hours at the 8000 level or higher ¹	21
Electives ¹	10
(Can be graded coursework and/or dissertation credits)	
Total Hours	54

¹ Beyond the B.S. degree