

**Department of Animal Science
Iowa State University**

Joint BS/MS Degree Program

The Department of Animal Science offers a combined BS/MS degree program that allows selected students to obtain both the BS and MS degrees in five years. This program is intended for highly qualified, research-oriented students who wish to obtain concurrently a BS degree in animal science and an MS degree with a major in animal breeding and genetics, animal physiology, animal science, or meat science. Students normally apply for and enter this program in the second semester of the third year of their BS course of study. Applicants usually will have completed some undergraduate research (e.g., an honors project) or will have been employed in a research laboratory.

To apply for the program, students should complete the Application for Combined BS/MS Degree Program (following below) and submit it to the Director of Graduate Education for the Department of Animal Science. A current transcript should be attached to the application. Applicants should rank in the upper quartile of undergraduate students. In the application process, they must select a major for their MS degree program and indicate a preference for a specific research group in the department. Applicants must provide two letters of recommendation to the Director of Graduate Education for the department, one from the major professor who will advise the applicant (indicating a commitment to accept him/her as a graduate student) and one from another reference.

After admission into the program, the student must submit a formal graduate application (See instructions "How to Apply" at http://www.ans.iastate.edu/stud/prosp_grad/index.php?sub=how). After admission to the Graduate College, the student is expected to begin an MS thesis research project during the summer semester after the junior year. The student is eligible for a one-quarter time research assistantship during the summer and the two semesters of the senior year or until he/she completes the BS degree program. After completion of the BS, students will be eligible for a one-half time assistantship. Students with graduate research or teaching assistantships pay Iowa resident tuition rates and receive a tuition scholarship amounting to a 25 percent tuition reduction for a one-quarter time appointment and a 50 percent reduction for one-half time appointments. If no assistantship is awarded, the student will be charged graduate tuition and fees.

Questions? Contact the Director of Graduate Admissions Dr. Joe Sebranek, telephone 515.294.1091, e-mail sebranek@iastate.edu, or Graduate Admissions Coordinator Donna Nelson, telephone 515.294.2160, e-mail dlnelson@iastate.edu.

A timetable of expected progress and suggested programs of study for each major follow below.

Typical Timetable for BS/MS Degree Program

Fall semester, junior year:

- Obtain application materials and departmental research brochure from Director of Graduate Education.
- Complete and return application.
- Visit faculty members to determine a research group in which to study for MS degree, if not yet determined.

Spring semester, junior year:

- Submit application materials *including* two letters of recommendation.
- Gain admission to Graduate College.

Summer session, junior year:

Begin thesis research.

Fall semester, senior year:

- Form Program of Study Committee.
- Continue thesis research.

Spring semester, senior year:

- Continue thesis research.
- Hold Committee meeting at the end of the semester to review progress.

Summer session, senior year:

Continue thesis research.

Fall semester, fifth year:

Continue thesis research.

Spring semester, fifth year:

- Complete experimental work; begin writing thesis.
- Hold Committee meeting at the end of the semester to review progress.

Summer session, fifth year:

- Complete and defend thesis; graduate with MS degree.
- Submit paper for publication.

**B.S./M.S. Degree Program
Animal Science BS/Animal Science MS Majors
Department of Animal Science
Iowa State University**

B.S. Degree Program

<p><u>Interpersonal and Public Communication Skills</u></p> <p>ENGL 104 3 ENGL 105 3 ENGL 302 or 314 3 SP CM 212 3 LIBR 160 <u>0.5</u> 12.5</p> <p><u>Mathematical Sciences</u></p> <p>MATH 150 3 STAT 101, 104, or 227 <u>3-5</u> 6-8</p> <p><u>Physical Sciences</u></p> <p>CHEM 177, 177L 5 BBMB 221 or CHEM 231 or 331 <u>3</u> 8</p> <p><u>Biological Sciences</u></p> <p>BIOL 201, 201L 4 BIOL 202, 202L or BMS 329 4 BIOL 301 or GEN 320 3 MIPM 201 or 302 and 203 <u>4-5</u> 15-16</p> <p><u>Personal Development, Human Relations, and Global Awareness</u></p> <p>Humanities 3 Social sciences 3 Ethics 3 International awareness 3 Multicultural awareness <u>3</u> 15</p>	<p><u>Animal Science</u></p> <p>AN S 110 AN S 114, 114L AN S 211 AN S 214, 214 L AN S 311 AN S 411 AN S 216, 224, 250 or 270 Required AN S 319, 331 & 352 AN S 313, 336, 337, 345, or 360 AN S 415, 419, 423, 424, 425, 426, 429, 434, 451, 470, FSHN 405, 410 (two courses)</p> <p><u>Business</u></p> <p>COM S 103 or AST 181 3 One course from list <u>3-4</u> 3-7</p> <p><u>Free Electives</u></p> <p>Several courses <u>24.5-35.5</u> 128</p>
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M.S. Degree Program

BBMB 404, 405 or 420	6 or 4
STAT 401	4
AN S 501	1
AN S 503	1
At least two courses from AnS 570, 518,519, 520, 533, 651, VPP 551, 551 L, 552	
AN S 699	<u>variable</u>
	30

The B.S. degree program may be modified according to Honors Program of Study and academic advisor's approval. To be better trained for the M.S. degree program, the student ordinarily completes training in calculus, physics, quantitative analysis, and organic chemistry. M.S. degree course requirements are established in consultation with the Program of Study Committee.

**B.S./M.S. Degree Program
Animal Science/Animal Physiology Majors
Department of Animal Science
Iowa State University**

B.S. Degree Program

<u>Interpersonal and Public Communication Skills</u>		<u>Animal Science</u>
ENGL 104	3	AN S 110
ENGL 105	3	AN S 114, 114L
ENGL 302 or 314	3	AN S 211
SP CM 212	3	AN S 214, 214 L
LIBR 160	<u>0.5</u>	AN S 311
	12.5	AN S 411
		AN S 216, 224, 250, or 270
		Required AN S 319, 331 & 352
<u>Mathematical Sciences</u>		AN S 313, 336, 337, 345, or 360
MATH 150	3	AN S 415, 419, 423, 424, 425, 426, 429,
STAT 101, 104, or 227	<u>3-5</u>	434, 451, 470, FSHN 405, 410 (two
	6-8	courses)
		<u>Business</u>
<u>Physical Sciences</u>		COM S 103 or AST 181
CHEM 177, 177L	5	3
BBMB 221 or		One course from list
CHEM 231 or 331	<u>3</u>	<u>3-4</u>
	8	3-7
		<u>Free Electives</u>
<u>Biological Sciences</u>		Several courses
BIOL 201, 201L	4	<u>24.5-35.5</u>
BIOL 202, 202L or		128
BMS 329	4	
BIOL 301 or GEN 320	3	
MIPM 201 or 302 and 203	<u>4-5</u>	
	15-16	
<u>Personal Development, Human Relations, and Global Awareness</u>		
Humanities	3	
Social sciences	3	
Ethics	3	
International awareness	3	
Multicultural awareness	<u>3</u>	
	15	

M.S. Degree Program

BBMB 404, 405	6
STAT 401	4
AN S 501	1
VPP 551	4
VPP 551 L	1
AN S Seminar	1
*Graduate electives	variable
AN S 699	<u>variable</u>
	30

*electives selected for area of specialization

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**B.S./M.S. Degree Program
Animal Science/Animal Breeding and Genetics Majors
Department of Animal Science
Iowa State University**

B.S. Degree Program

<p><u>Interpersonal and Public Communication Skills</u></p> <p>ENGL 104 3 ENGL 105 3 ENGL 302 or 314 3 SP CM 212 3 LIBR 160 <u>0.5</u> 12.5</p> <p><u>Mathematical Sciences</u></p> <p>MATH 150 3 STAT 101, 104, or 227 <u>3-5</u> 6-8</p> <p><u>Physical Sciences</u></p> <p>CHEM 177, 177L 5 BBMB 221 or CHEM 231 or 331 <u>3</u> 8</p> <p><u>Biological Sciences</u></p> <p>BIOL 201, 201L 4 BIOL 202, 202L or BMS 329 4 BIOL 301 or GEN 320 3 MIPM 201 or 302 and 203 <u>4-5</u> 15-16</p> <p><u>Personal Development, Human Relations, and Global Awareness</u></p> <p>Humanities 3 Social sciences 3 Ethics 3 International awareness 3 Multicultural awareness <u>3</u> 15</p>	<p style="text-align: center;"><u>Animal Science</u></p> <p>AN S 110 AN S 114, 114L AN S 211 AN S 214, 214 L AN S 311 AN S 411 AN S 216, 224, 250 or 270 Required AN S 319, 331, & 352 AN S 313, 336, 337, 345, or 360 AN S 415, 419, 423, 424, 425, 426, 429, 434, 451, 470, FSHN 405, 410(two courses)</p> <p style="text-align: center;"><u>Business</u></p> <p>COM S 103 or AST 181 3 One course from list <u>3-4</u> 3-7</p> <p style="text-align: center;"><u>Free Electives</u></p> <p>Several courses <u>24.5-35.5</u> 128</p>
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M.S. Degree Program

Quantitative and Population Genetics	9
Mendelian Genetics	3
Statistics	3
AN S 501	1
AN S 658X	1
Graduate electives	6
AN S 699	<u>7</u>
	30

The B.S. degree program may be modified according to Honors Program of Study and academic advisor's approval. To be better trained for the M.S. degree program, the student ordinarily completes training in calculus, physics, quantitative analysis, and organic chemistry. M.S. degree course requirements are established in consultation with the Program of Study Committee.

IOWA STATE UNIVERSITY
Department of Animal Science
Combined B.S./M.S. Degree Program

CURRENT YEAR COURSE SHEET

Name _____ Date _____

Address _____

Name of school where currently enrolled _____

List below all courses that you have taken or are planning to take during the current academic year.

Department	Course Number	Course Title	Grade (for Completed Courses)
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In the space below, discuss your reasons for wanting to enroll in the B.S./M.S. degree program of the Department of Animal Science and your plans after completing your degrees.