

**From:** [Smith, Randy](#)  
**To:** [Garcia Guerra, Alvaro](#); [Osborne, Jeanne](#)  
**Cc:** [Sutherland, Sue](#); [Reed, Katie](#); [Smith, Randy](#); [Duffy, Lisa](#); [Hunt, Ryan](#); [Lyvers Peffer, Pasha](#); [Christy, Ann](#)  
**Subject:** Proposal to revise the undergraduate minor programs in the Department of Animal Sciences  
**Date:** Wednesday, September 18, 2024 4:30:00 PM  
**Attachments:** [image001.png](#)

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Alvaro and Jeanne:

The proposal from the Department of Animal Sciences to revise its undergraduate minor programs (Animal Sciences, Dairy Science, Equine Science, Animal Nutrition, Animal Pre-Veterinary Medicine, Human and Animal Interactions, and Meat Science) was approved by the Council on Academic Affairs at its meeting on September 18, 2024. Thank you for attending the meeting to respond to questions/comments.

No additional level of internal review/approval is necessary. This action will be included in the Council's next [Annual Activities Report](#) to the University Senate (July 2025).

The Office of the University Registrar will work you with any implementation issues.

Please keep a copy of this message for your file on the proposal and I will do the same for the file in the Office of Academic Affairs.

If you have any questions please contact the Chair of the Council, Professor Sue Sutherland (.43), or me.

Randy



**W. Randy Smith, Ph.D.**

Vice Provost for Academic Programs

**Office of Academic Affairs**

University Square South, 15 E. 15<sup>th</sup> Avenue, Columbus, OH 43201

614-292-5881 Office

[smith.70@osu.edu](mailto:smith.70@osu.edu)

**Assisted by:**

**Katie Reed**

Executive Assistant

(614) 292-5672

[reed.901@osu.edu](mailto:reed.901@osu.edu)

**From:** [Osborne, Jeanne](#)  
**To:** [Smith, Randy](#)  
**Cc:** [Reed, Katie](#); [Violet, Cynthia](#); [Barker, David](#); [Eastridge, Maurice](#); [Bohrer, Benjamin M.](#)  
**Subject:** Requesting CAA Approval for revision to Minors in the Department of Animal Sciences  
**Date:** Monday, June 24, 2024 8:00:11 AM  
**Attachments:** [ANIMSC Minors Revisions \(eff AU25\) Combined Files.pdf](#)  
[image001.png](#)

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Dear Dr. Smith,

The College of Food, Agricultural, and Environmental Sciences is requesting Council on Academic Affairs approval for revisions to the Undergraduate Minors in the Department of Animal Sciences, specifically: Animal Sciences, Dairy Science, Equine Science, Animal Nutrition, Animal Pre-Veterinary Medicine, Human and Animal Interactions, and Meat Science, as summarized below and outlined in the attached proposal.

The primary components of proposed changes to the minors from the Department of Animal Sciences are to update the information and courses to reflect the current state and offerings within the Department of Animal Sciences. For all but the Meat Science Minor, the updates are minor including updating the coordinator, removing courses that are no longer offered, adding new courses, and updating elective lists. The Meat Science minor has more substantive changes that will help the student focus on the discipline, improve flexibility and allow the student to select courses that address their interests and needs by decreasing the required and increasing the elective course options with an overall reduction in credit hours to complete the minor, as well as adding new course options and removing courses that are no longer offered.

This proposal has been approved by the faculty and the Academic Affairs Committee of the Department of Animal Sciences, and by the CFAES Committee on Academic Affairs. Please let me know if any additional information is needed in support of this request.

Sincerely,

Jeanne



*Jeanne M. Osborne* | Pronouns: She, Her, Hers

Assistant Dean for Academic Affairs  
College of Food, Agricultural, and Environmental Sciences  
100E Agricultural Administration, 2120 Fyffe Rd.  
Columbus, OH 43210  
Tel: 614-292-1734  
Fax: 614-292-1218  
e-mail: [Osborne.2@osu.edu](mailto:Osborne.2@osu.edu)

*'Unexpected kindness is the most powerful, least costly, and most underrated*

*agent of human change'* (Bob Kerrey)



**THE OHIO STATE UNIVERSITY**

COLLEGE OF FOOD, AGRICULTURAL,  
AND ENVIRONMENTAL SCIENCES

**Animal Sciences**

2029 Fyffe Court  
221B Animal Science Bldg.  
Columbus, OH 43210-1095  
(614) 688-3059  
eastridge.1@osu.edu

TO: COAA

FROM: Department of Animal Sciences  
Academic Affairs Committee

DATE: June 6, 2024

RE: Minors in the Department

The Academic Affairs Committee made some revisions to seven of the minors in the Department of Animal Sciences during recent months and then we took the revisions to the faculty for discussion at our April faculty meeting. On Wednesday, May 8, the faculty in the Department of Animal Sciences approved the changes to the enclosed minors. You will find attached the original structure, original with marked changes, and a copy of the revised minors. The changes in each respective minor are described below:

Minor: **Animal Sciences**

- Change in coordinator

Minor: **Dairy Science**

- Changed format on minor sheet
- Removed ANIMSCI 4400 which is no longer offered
- Added ANIMSCI 3180 which is a new course

Minor: **Equine Science**

- Removed ANIMSCI 4193 from the list of elective courses because the availability of using ANIMSCI 4193 is described under “Restrictions and General Information”

Minor: **Animal Nutrition**

- Change in coordinator
- Changed format
- Added the following courses to the electives list: ANIMSCI 3400, 3430, 3440, 5090, and 5420.

Minor: **Animal Prevet**

- Change in coordinator
- Changed cr hr required from 15 to 14
- Added the following courses to the electives list: ANIMSCI 3180, 3430, 3440, 3470, and 3480.

Minor: **Human and Animal Interactions**

- Added ANIMSCI 4597 to the electives list

*(continued)*

Minor: **Meat Science**

- Courses in AEDECON and FDSCTE not cross-listed with ANIMSCI were removed to make sure students focused on actual meat science courses in the Department of Animal Sciences
- Change in “Required” courses were made for greater flexibility of students meeting requirements given that some of the presently required courses are not offered every year due to low enrollment.
- Changed credit hours required from 15 to 14; changed required credit hours to 6 and electives to 8 cr hr
- Removed MEATSCI 3310 as an optional “required” course
- Removed MEATSCI 4510 as a required course and moved to elective list
- Removed ANIMSCI 4400 which is no longer offered
- Added ANIMSCI 3180 which is a new course
- Added ANIMSCI/FDSCTE 4035 which is a new course
- Removed the following from the elective list: ANIMSCI 5100, MEATSCI 3210 (a required course), MEATSCI/ANIMSCI 5810
- Updated footnotes

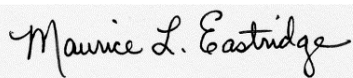
Also, there will not be any negative impacts on current students enrolled in any of the minors listed above. Actually, the changes in the Meat Science Minor should make it more accommodating for students to complete.

Let me know if you have any questions about the changes or the content of the minors.

Thanks for your help in getting further approval for the revision to the minors.

Best regards,

Sincerely,



Maurice L. Eastridge  
*Professor and Senior Associate Chair  
Chair, Academic Affairs Committee*

A minor in Animal Science is for students who wish to develop an understanding about the principles of the beef, dairy, horse, poultry, sheep, and swine industries. This minor will appeal to students with interests in animal production with an emphasis on genetics, nutrition, and physiology.

**Prerequisite Courses for the minor**

		<b><u>Credit Hours</u></b>
BIO	1101 or 1113 or 1113H	4
ANIMSCI	2260 or equivalent	3

The Animal Science minor consists of 15 credit hours as follows:

**Required:**

			<b><u>Credit Hours</u></b>
ANIMSCI	2200.01	Introduction to Animal Sciences	3
ANIMSCI	2200.02	Introduction to Animal Sciences - Lab	1
ANIMSCI	2200.03	Animal Systems	2
ANIMSCI	3130	Principles of Animal Nutrition	3
ANIMSCI	3140 or 3160	Principles of Animal Systems Physiology or Reproductive Physiology	3
ANIMSCI	3150	Principles of Genetic Improvement	3

**Restrictions and General Information**

1. The minor is not available to student majoring in Animal Sciences.
2. A minor should be declared by the time a student accumulates 60 hours.
3. A minimum 2.00 cumulative point-hour ratio is required in the minor course work; and a minimum grade of a C- is required for each course used to complete the minor.
4. A student is permitted to overlap up to 6 credit hours between the GE and the minor.
5. The minor must contain a minimum of 12 credit hours distinct from the major and/or additional minors (i.e. if a minor requires more than 12 credit hours, a student is permitted to overlap those hours beyond 12 with the major or with another minor).
6. The minor must include at least 6 hours of upper-level or upper-division course work (3000 or above).
7. Course work graded Pass/Non-Pass cannot count in the minor, and no more than 3 credit hours of course work graded Satisfactory/Unsatisfactory may count toward the minor.
8. No more than 3 credit hours of xx93 may count toward the minor.
9. A student is permitted to count up to 6 total hours of transfer credit and/or credit by examination.

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ANIMSCI	2200.03	Animal Systems	2
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ANIMSCI	3140 or 3160	Principles of Animal Systems Physiology or Reproductive Physiology	3
ANIMSCI	3150	Principles of Genetic Improvement	3

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ANIMSCI	2200.02 Introduction to Animal Sciences - Lab	1
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ANIMSCI	3130 Principles of Animal Nutrition	3
ANIMSCI	3140 or 3160 Principles of Animal Systems Physiology or Reproductive Physiology	3
ANIMSCI	3150 Principles of Genetic Improvement	3

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8. No more than 3 credit hours of xx93 may count toward the minor.
9. A student is permitted to count up to 6 total hours of transfer credit and/or credit by examination.



A minor in animal nutrition is for students who wish to develop a greater understanding of nutritional physiology and fundamentals of nutrition and how to apply basic concepts learned to the management of animals. This minor will be beneficial to students considering a career in nutrition consulting, education, and research. Topics covered emphasize physiology, nutrient requirements and function, and diet formulation.

**Prerequisite Courses for the minor**

	<b>Credit Hours</b>
BIOLOGY 1113 or 1113H	4

The minor in Animal Nutrition consists of 15 hours selected as follows:

**Required:**

	<b>Credit Hours</b>
ANIMSCI 3130 Principles of Animal Nutrition	3
ANIMSCI 3140 Principles of Animal Systems Physiology	3

**Required Electives: 9 hours**

ANIMSCI 3131 Equine Feeds and Feeding	3
ANIMSCI 5031 Ruminant Nutrition	3
ANIMSCI 5032 Non-Ruminant Nutrition	3
ANIMSCI 5033 Feeding Management and Records Analysis for Dairy Cattle	3
ANIMSCI 5070 Nutritional Immunology in Animal Systems	3
ANIMSCI 5530 Comparative Animal Nutrient Metabolism	3

**Restrictions and General Information**

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**THE OHIO STATE UNIVERSITY**  
COLLEGE OF FOOD, AGRICULTURAL,  
AND ENVIRONMENTAL SCIENCES

**Animal Nutrition  
Minor**  
Food, Agricultural, and  
Environmental Sciences  
**8/22/22 Effective**  
**Summer/Autumn,**  
**2025**

Dr. Pasha Lyvers, ~~Peffer~~ Benjamin Wenner, Maurice  
Eastridge, Coordinator  
201 Plumb Hall 21B2E Animal Sciences Building  
2027 Coffey Rd. 9 Fyffe Ct.  
614-292-3896/688-1968  
lyvers-  
peffer.1@osu.edu wenner.20@osu.edu castridge.1@osu.edu

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**Prerequisite Courses for the minor**

BIOLOGY 1113 or 1113H

**Credit Hours**

4

The minor in Animal Nutrition consists of 15 hours selected as follows:

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**Required (6 credit hours):**

ANIMSCI 3130 Principles of Animal Nutrition  
ANIMSCI 3140 Principles of Animal Systems Physiology

**Credit Hours**

3

3

**Required Electives: Minimum of 9 hours**

ANIMSCI 3131 Equine Feeds and Feeding 3  
~~ANIMSCI 3400 Management Intensive Grazing 2~~  
~~ANIMSCI 3430 Animal Nutrition Laboratory 0.5~~  
~~ANIMSCI 3440 Animal Physiology Laboratory 0.5~~  
ANIMSCI 5031 Ruminant Nutrition 3  
ANIMSCI 5032 Non-Ruminant Nutrition 3  
ANIMSCI 5033 Feeding Management and Records Analysis for Dairy Cattle 3  
ANIMSCI 5070 Nutritional Immunology in Animal Systems 3  
~~ANIMSCI 5090 Gut Microbiology 2~~  
ANIMSCI 5530 Comparative Animal Nutrient Metabolism 3  
[ANIMSCI 5420](#)

**Restrictions and General Information**

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**Prerequisite Courses for the minor**

BIOLOGY 1113 or 1113H

**Credit Hours**

4

The minor in Animal Nutrition consists of 15 hours selected as follows:

**Required (6 credit hours):**

ANIMSCI 3130	Principles of Animal Nutrition	3
ANIMSCI 3140	Principles of Animal Systems Physiology	3

**Credit Hours**

3

3

**Required Electives: Minimum of 9 hours**

ANIMSCI 3131	Equine Feeds and Feeding	3
ANIMSCI 3400	Management Intensive Grazing	2
ANIMSCI 3430	Animal Nutrition Laboratory	0.5
ANIMSCI 3440	Animal Physiology Laboratory	0.5
ANIMSCI 5031	Ruminant Nutrition	3
ANIMSCI 5032	Non-Ruminant Nutrition	3
ANIMSCI 5033	Feeding Management and Records Analysis for Dairy Cattle	3
ANIMSCI 5070	Nutritional Immunology in Animal Systems	3
ANIMSCI 5090	Gut Microbiology	2
ANIMSCI 5530	Comparative Animal Nutrient Metabolism	3
ANIMSCI 5420	Environmental Impacts of Crop-Livestock Systems	3

3

2

0.5

0.5

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3

3

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2

3

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8. No more than 3 credit hours of xx93 may count toward the minor.
9. A student is permitted to count up to 6 total hours of transfer credit and/or credit by examination.

A minor in Animal Pre-Veterinary Medicine is for students who wish to develop a greater understanding about the impacts of health on beef, dairy, horse, poultry, sheep, swine and/or companion animal production. This minor will appeal to students with interests outside the Animal Sciences major who are pursuing a career in veterinary medicine.

**Prerequisite Courses for the minor**

BIOLOGY 1101 or 1113 or 1113H

**Credit Hours**

4

The minor in Animal Pre-Veterinary Medicine consists of 15 credit hours selected as follows:

**Required Courses (10 credit hours)**

			<b>Credit Hours</b>
ANIMSCI	2200.01	Introduction to Animal Sciences	3
ANIMSCI	3140	Principles of Animal Systems Physiology	3
ANIMSCI	3170	Animal Health I	2
ANIMSCI	3270	Animal Health II	2

**Required Electives: Minimum of 5 credit hours**

ANIMSCI	2000	Animal Handling	2
ANIMSCI	3100	Animal Growth and Development	3
ANIMSCI	3130	Principles of Animal Nutrition	3
ANIMSCI	3147	Milk Secretion	2
ANIMSCI	3160	Reproductive Physiology	3

**Restrictions and General Information**

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**Animal Pre-Veterinary Medicine Minor**  
 Food, Agricultural, and Environmental Sciences  
 1/22/15 Effective Summer 2024/Autumn 2025

Dr. Pasha A Lyvers Peffer Brooklyn Wagner  
 Coordinator  
 201 Plumb Hall 102 Animal Sciences Building  
 2027 Coffey Road 9 Fyffe Ct.  
 614-292-3896/247-1768  
[lyvers-peffer.1@osu.edu](mailto:lyvers-peffer.1@osu.edu) [wagner.750@osu.edu](mailto:wagner.750@osu.edu)

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A minor in Animal Pre-Veterinary Medicine is for students who wish to develop a greater understanding about the impacts of health on beef, dairy, horse, poultry, sheep, swine and/or companion animal production. This minor will appeal to students with interests outside the Animal Sciences major who are pursuing a career in veterinary medicine.

<u>Prerequisite Courses for the minor</u>	<u>Credit Hours</u>
BIOLOGY 1101 or 1113 or 1113H	4

The minor in Animal Pre-Veterinary Medicine consists of 15 credit hours selected as follows:

<u>Required Courses (10 credit hours)</u>	<u>Credit Hours</u>
ANIMSCI 2200.01 Introduction to Animal Sciences	3
ANIMSCI 3140 Principles of Animal Systems Physiology	3
ANIMSCI 3170 Animal Health I	2
ANIMSCI 3270 Animal Health II	2

<u>Required Electives: Minimum of 5 credit hours</u>		<u>Credit Hours</u>
ANIMSCI 2000	Animal Handling	2
ANIMSCI 3100	Animal Growth and Development	3
ANIMSCI 3130	Principles of Animal Nutrition	3
ANIMSCI 3147	Milk Secretion	2
ANIMSCI 3160	Reproductive Physiology	3
<del>ANIMSCI 3180</del>	<del>Introduction to Animal Welfare</del>	<del>2</del>
<del>ANIMSCI 3430</del>	<del>Animal Nutrition Laboratory</del>	<del>0.5</del>
<del>ANIMSCI 3440</del>	<del>Animal Physiology Laboratory</del>	<del>0.5</del>
<del>ANIMSCI 3470</del>	<del>Animal Health Laboratory</del>	<del>0.5</del>
<del>ANIMSCI 3480</del>	<del>Animal Welfare Laboratory</del>	<del>0.5</del>

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9. A student is permitted to count up to 6 total hours of transfer credit and/or credit by examination.

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**Prerequisite Courses for the minor**

BIOLOGY 1101 or 1113 or 1113H

**Credit Hours**

4

The minor in Animal Pre-Veterinary Medicine consists of 14 credit hours selected as follows:

**Required Courses (10 credit hours)**

			<b>Credit Hours</b>
ANIMSCI	2200.01	Introduction to Animal Sciences	3
ANIMSCI	3140	Principles of Animal Systems Physiology	3
ANIMSCI	3170	Animal Health I	2
ANIMSCI	3270	Animal Health II	2

**Required Electives: Minimum of 4 credit hours**

ANIMSCI	2000	Animal Handling	2
ANIMSCI	3100	Animal Growth and Development	3
ANIMSCI	3130	Principles of Animal Nutrition	3
ANIMSCI	3147	Milk Secretion	2
ANIMSCI	3160	Reproductive Physiology	3
ANIMSCI	3180	Introduction to Animal Welfare	2
ANIMSCI	3430	Animal Nutrition Laboratory	0.5
ANIMSCI	3440	Animal Physiology Laboratory	0.5
ANIMSCI	3470	Animal Health Laboratory	0.5
ANIMSCI	3480	Animal Welfare Laboratory	0.5

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8. No more than 3 credit hours of xx93 may count toward the minor.
9. A student is permitted to count up to 6 total hours of transfer credit and/or credit by examination.

The minor provides students with the ability to gain knowledge in the dairy industry. The course work will provide the following:

1. An understanding of the scope of the dairy industry and its economic value to society.
2. An understanding of the biological principles involved in the nutrition and production of dairy animals.
3. The ability to apply knowledge gained to solve problems and to integrate solutions to attain successful dairy production management.

**Prerequisite Courses for the minor**

		<b>Credit Hours</b>
BIOLOGY	1101, 1113, or 1113H	4
ANIMSCI	2200.01	3

The Dairy Science Minor consists of 15 hours selected as follows:

**Required: 7 hours**

		<b>Credit Hours</b>
ANIMSCI	2507 Challenges and Opportunities for the Dairy Industry	1
ANIMSCI	3147 Milk Secretion	2
ANIMSCI	4007 Dairy Herd Management	4

**Electives: 8 hours**

ANIMSCI	2200.02 Introduction to Animal Sciences Lab	1
ANIMSCI	2400.07 Global Dairy Industries	1
ANIMSCI	3130 Principles of Animal Nutrition	3
ANIMSCI	3140 Principles of Animal Systems Physiology	3
ANIMSCI	3150 Principles of Genetic Improvement	3
ANIMSCI	3160 Reproductive Physiology	3
ANIMSCI	3170 Animal Health I	2
ANIMSCI	3270 Animal Health II	2
ANIMSCI	3307 Dairy Cattle Selection and Evaluation	2
ANIMSCI	3400 Management Intensive Grazing	2
ANIMSCI	3797.07 Dairy Industry Outside the U.S.	3
ANIMSCI	4400 Animal Welfare and Behavior in Livestock	3
ANIMSCI	5031 Ruminant Nutrition	3
ANIMSCI	5033 Feeding Management and Record Analysis for Dairy Cattle	3
FDSCTE	5420 Dairy Processing	3

**Restrictions and General Information**

1. This minor is not available to students majoring in Animal Sciences. It may be an option as a second minor for Animal Biosciences and Animal Industries specializations.
2. A minor should be declared by the time a student accumulates 60 hours.
3. A minimum 2.00 cumulative point-hour ratio is required in the minor course work; and a minimum grade of a C- is required for each course used to complete the minor.
4. A student is permitted to overlap up to 6 credit hours between the GE and the minor.
5. The minor must contain a minimum of 12 credit hours distinct from the major and/or additional minors (i.e. if a minor requires more than 12 credit hours, a student is permitted to overlap those hours beyond 12 with the major or with another minor).
6. The minor must include at least 6 hours of upper-level or upper-division course work (3000 or above).
7. Course work graded Pass/Non-Pass cannot count in the minor, and no more than 3 credit hours of course work graded Satisfactory/Unsatisfactory may count toward the minor.
8. No more than 3 credit hours of xx93 may count toward the minor.
9. A student is permitted to count up to 6 total hours of transfer credit and/or credit by examination.
10. A student is not permitted to receive credit for both the Dairy Science Minor and the Dairy Certificate.

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The minor provides students with the ability to gain knowledge in the dairy industry. The course work will provide the following:

1. An understanding of the scope of the dairy industry and its economic value to society.
2. An understanding of the biological principles involved in the nutrition and production of dairy animals.
3. The ability to apply knowledge gained to solve problems and to integrate solutions to attain successful dairy production management.

**Prerequisite Courses for the minor**

		Credit Hours
BIOLOGY	1101, 1113, or 1113H	4
ANIMSCI	2200.01	3

The Dairy Science Minor consists of 15 hours selected as follows:

**Required Courses (7 credit hours): 7 hours**

			Credit Hours
ANIMSCI	2507	Challenges and Opportunities for the Dairy Industry	1
ANIMSCI	3147	Milk Secretion	2
ANIMSCI	4007	Dairy Herd Management	4

**Required Electives: Minimum of 8 credit hours**

ANIMSCI	2200.02	Introduction to Animal Sciences Lab	1
ANIMSCI	2400.07	Global Dairy Industries	1
ANIMSCI	3130	Principles of Animal Nutrition	3
ANIMSCI	3140	Principles of Animal Systems Physiology	3
ANIMSCI	3150	Principles of Genetic Improvement	3
ANIMSCI	3160	Reproductive Physiology	3
ANIMSCI	3170	Animal Health I	2
<del>ANIMSCI</del>	<del>3180</del>	<del>Introduction to Animal Welfare</del>	<del>2</del>
ANIMSCI	3270	Animal Health II	2
ANIMSCI	3307	Dairy Cattle Selection and Evaluation	2
ANIMSCI	3400	Management Intensive Grazing	2
ANIMSCI	3797.07	Dairy Industry Outside the U.S.	3
<del>ANIMSCI</del>	<del>4400</del>	<del>Animal Welfare and Behavior in Livestock</del>	<del>3</del>
ANIMSCI	5031	Ruminant Nutrition	3
ANIMSCI	5033	Feeding Management and Record Analysis for Dairy Cattle	3
FDSCTE	5420	Dairy Processing	3

**Restrictions and General Information**

1. This minor is not available to students majoring in Animal Sciences. It may be an option as a second minor for Animal Biosciences and Animal Industries specializations.
2. A minor should be declared by the time a student accumulates 60 hours.
3. A minimum 2.00 cumulative point-hour ratio is required in the minor course work; and a minimum grade of a C- is required for each course used to complete the minor.
4. A student is permitted to overlap up to 6 credit hours between the GE and the minor.
5. The minor must contain a minimum of 12 credit hours distinct from the major and/or additional minors (i.e. if a minor requires more than 12 credit hours, a student is permitted to overlap those hours beyond 12 with the major or with another minor).
6. The minor must include at least 6 hours of upper-level or upper-division course work (3000 or above).
7. Course work graded Pass/Non-Pass cannot count in the minor, and no more than 3 credit hours of course work graded Satisfactory/Unsatisfactory may count toward the minor.
8. No more than 3 credit hours of xx93 may count toward the minor.
9. A student is permitted to count up to 6 total hours of transfer credit and/or credit by examination.
10. A student is not permitted to receive credit for both the Dairy Science Minor and the Dairy Certificate.

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The minor provides students with the ability to gain knowledge in the dairy industry. The course work will provide the following:

1. An understanding of the scope of the dairy industry and its economic value to society.
2. An understanding of the biological principles involved in the nutrition and production of dairy animals.
3. The ability to apply knowledge gained to solve problems and to integrate solutions to attain successful dairy production management.

**Prerequisite Courses for the minor**

		<b>Credit Hours</b>
BIOLOGY	1101, 1113, or 1113H	4
ANIMSCI	2200.01	3

The Dairy Science Minor consists of 15 hours selected as follows:

**Required Courses (7 credit hours):**

			<b>Credit Hours</b>
ANIMSCI	2507	Challenges and Opportunities for the Dairy Industry	1
ANIMSCI	3147	Milk Secretion	2
ANIMSCI	4007	Dairy Herd Management	4

**Required Electives: Minimum of 8 credit hours**

ANIMSCI	2200.02	Introduction to Animal Sciences Lab	1
ANIMSCI	2400.07	Global Dairy Industries	1
ANIMSCI	3130	Principles of Animal Nutrition	3
ANIMSCI	3140	Principles of Animal Systems Physiology	3
ANIMSCI	3150	Principles of Genetic Improvement	3
ANIMSCI	3160	Reproductive Physiology	3
ANIMSCI	3170	Animal Health I	2
ANIMSCI	3180	Introduction to Animal Welfare	2
ANIMSCI	3270	Animal Health II	2
ANIMSCI	3307	Dairy Cattle Selection and Evaluation	2
ANIMSCI	3400	Management Intensive Grazing	2
ANIMSCI	3797.07	Dairy Industry Outside the U.S.	3
ANIMSCI	5031	Ruminant Nutrition	3
ANIMSCI	5033	Feeding Management and Record Analysis for Dairy Cattle	3
FDSCTE	5420	Dairy Processing	3

**Restrictions and General Information**

1. This minor is not available to students majoring in Animal Sciences. It may be an option as a second minor for Animal Biosciences and Animal Industries specializations.
2. A minor should be declared by the time a student accumulates 60 hours.
3. A minimum 2.00 cumulative point-hour ratio is required in the minor course work; and a minimum grade of a C- is required for each course used to complete the minor.
4. A student is permitted to overlap up to 6 credit hours between the GE and the minor.
5. The minor must contain a minimum of 12 credit hours distinct from the major and/or additional minors (i.e. if a minor requires more than 12 credit hours, a student is permitted to overlap those hours beyond 12 with the major or with another minor).
6. The minor must include at least 6 hours of upper-level or upper-division course work (3000 or above).
7. Course work graded Pass/Non-Pass cannot count in the minor, and no more than 3 credit hours of course work graded Satisfactory/Unsatisfactory may count toward the minor.
8. No more than 3 credit hours of xx93 may count toward the minor.
9. A student is permitted to count up to 6 total hours of transfer credit and/or credit by examination.
10. A student is not permitted to receive credit for both the Dairy Science Minor and the Dairy Certificate.

The minor provides students with the ability to gain knowledge in the equine industry. The course work will provide the following:

1. An understanding of the scope of the equine industry and its economic value to society.
2. An understanding of the biological principles involved in the nutrition and production of equine animals.
3. Insight into equine behavior and the ability to humanely manage equine animals for human benefit as well as for the animal's well-being.
4. The ability to apply knowledge gained to solve problems and to integrate solutions to attain successful equine production management.

The Equine Science minor consists of 15 hours selected as follows:

<b>Required Courses: 7-8 hours</b>			<b>Credit Hours</b>
ANIMSCI	2221	Introduction to Equine Studies	3
<b>and one of the following options:</b>			
<b>Option 1:</b>			
ANIMSCI	3131	Equine Feeds and Feeding	3
and ANIMSCI	3171	Equine Health and Diseases	2
<b>Option 2:</b>			
ANIMSCI	4001	Equine Production	4

**Electives: Select courses to meet the minimum of 15 credit hours in the minor**

ANIMSCI	2301 or 2401	Equine Behavior and Training or Advanced Equine Behavior and Training <sup>1</sup>	3
ANIMSCI	2400.01	Equine Studies in Europe <sup>2</sup>	1
ANIMSCI	3101	Equine Facilities, Marketing and Management	3
ANIMSCI	3131	Equine Feeds and Feeding ( <i>if not taken above</i> )	3
ANIMSCI	3171	Equine Health and Diseases ( <i>if not taken above</i> )	2
ANIMSCI	3301	Equine Selection and Evaluation	2
ANIMSCI	3400	Management Intensive Grazing	2
ANIMSCI	3797.01	Equine Studies in Europe (Travel Abroad) <sup>2</sup>	3
ANIMSCI	4193	Individual Studies (in Equine)	1-3
ANIMSCI	5551	Equine Assisted Activities and Therapies	2

<sup>1</sup>A maximum of 3 credits between ANIMSCI 2301 and 2401 may count in the Equine minor.

<sup>2</sup>Courses must be taken concurrently

**Restrictions and General Information**

1. This minor is not available to students majoring in Animal Sciences. It may be an option as a second minor for Animal Biosciences and Animal Industries specialization.
2. A minor should be declared by the time a student accumulates 60 hours.
3. A minimum 2.00 cumulative point-hour ratio is required in the minor course work; and a minimum grade of a C- is required for each course used to complete the minor.
4. A student is permitted to overlap up to 6 credit hours between the GE and the minor.
5. The minor must contain a minimum of 12 credit hours distinct from the major and/or additional minors (i.e. if a minor requires more than 12 credit hours, a student is permitted to overlap those hours beyond 12 with the major or with another minor).
6. The minor must include at least 6 hours of upper-level or upper-division course work (3000 or above).
7. Course work graded Pass/Non-Pass cannot count in the minor, and no more than 3 credit hours of course work graded Satisfactory/Unsatisfactory may count toward the minor.
8. No more than 3 credit hours of xx93 may count toward the minor.
9. A student is permitted to count up to 6 total hours of transfer credit and/or credit by examination.

The minor provides students with the ability to gain knowledge in the equine industry. The course work will provide the following:

1. An understanding of the scope of the equine industry and its economic value to society.
2. An understanding of the biological principles involved in the nutrition and production of equine animals.
3. Insight into equine behavior and the ability to humanely manage equine animals for human benefit as well as for the animal's well-being.
4. The ability to apply knowledge gained to solve problems and to integrate solutions to attain successful equine production management.

The Equine Science minor consists of 15 hours selected as follows:

<b>Required Courses: 7-8 hours</b>			<b>Credit Hours</b>
ANIMSCI	2221	Introduction to Equine Studies	3
<b>and one of the following options:</b>			
<b>Option 1:</b>			
ANIMSCI	3131	Equine Feeds and Feeding	3
<b>and ANIMSCI</b>	3171	Equine Health and Diseases	2
<b>Option 2:</b>			
ANIMSCI	4001	Equine Production	4
<b><u>Electives: Select courses to meet the minimum of 15 credit hours in the minor</u></b>			
ANIMSCI	2301 or 2401	Equine Behavior and Training or Advanced Equine Behavior and Training <sup>1</sup>	3
ANIMSCI	2400.01	Equine Studies in Europe <sup>2</sup>	1
ANIMSCI	3101	Equine Facilities, Marketing and Management	3
ANIMSCI	3131	Equine Feeds and Feeding ( <i>if not taken above</i> )	3
ANIMSCI	3171	Equine Health and Diseases ( <i>if not taken above</i> )	2
ANIMSCI	3301	Equine Selection and Evaluation	2
ANIMSCI	3400	Management Intensive Grazing	2
ANIMSCI	3797.01	Equine Studies in Europe (Travel Abroad) <sup>2</sup>	3
<a href="#">ANIMSCI4193</a>		<a href="#">Individual Studies (in Equine)</a> <sup>1-3</sup>	
ANIMSCI	5551	Equine Assisted Activities and Therapies	2

<sup>1</sup>A maximum of 3 credits between ANIMSCI 2301 and 2401 may count in the Equine minor.

<sup>2</sup>Courses must be taken concurrently

**Restrictions and General Information**

1. This minor is not available to students majoring in Animal Sciences. It may be an option as a second minor for Animal Biosciences and Animal Industries specialization.
2. A minor should be declared by the time a student accumulates 60 hours.
3. A minimum 2.00 cumulative point-hour ratio is required in the minor course work; and a minimum grade of a C- is required for each course used to complete the minor.
4. A student is permitted to overlap up to 6 credit hours between the GE and the minor.
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7. Course work graded Pass/Non-Pass cannot count in the minor, and no more than 3 credit hours of course work graded Satisfactory/Unsatisfactory may count toward the minor.
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9. A student is permitted to count up to 6 total hours of transfer credit and/or credit by examination.

The minor provides students with the ability to gain knowledge in the equine industry. The course work will provide the following:

1. An understanding of the scope of the equine industry and its economic value to society.
2. An understanding of the biological principles involved in the nutrition and production of equine animals.
3. Insight into equine behavior and the ability to humanely manage equine animals for human benefit as well as for the animal's well-being.
4. The ability to apply knowledge gained to solve problems and to integrate solutions to attain successful equine production management.

The Equine Science minor consists of 15 hours selected as follows:

<b>Required Courses: 7-8 hours</b>			<b>Credit Hours</b>
ANIMSCI	2221	Introduction to Equine Studies	3
<b>and one of the following options:</b>			
<b>Option 1:</b>			
ANIMSCI	3131	Equine Feeds and Feeding	3
<b>and ANIMSCI</b>	3171	Equine Health and Diseases	2
<b>Option 2:</b>			
ANIMSCI	4001	Equine Production	4

**Electives: Select courses to meet the minimum of 15 credit hours in the minor**

ANIMSCI	2301 or 2401	Equine Behavior and Training or Advanced Equine Behavior and Training <sup>1</sup>	3
ANIMSCI	2400.01	Equine Studies in Europe <sup>2</sup>	1
ANIMSCI	3101	Equine Facilities, Marketing and Management	3
ANIMSCI	3131	Equine Feeds and Feeding ( <i>if not taken above</i> )	3
ANIMSCI	3171	Equine Health and Diseases ( <i>if not taken above</i> )	2
ANIMSCI	3301	Equine Selection and Evaluation	2
ANIMSCI	3400	Management Intensive Grazing	2
ANIMSCI	3797.01	Equine Studies in Europe (Travel Abroad) <sup>2</sup>	3
ANIMSCI	5551	Equine Assisted Activities and Therapies	2

<sup>1</sup>A maximum of 3 credits between ANIMSCI 2301 and 2401 may count in the Equine minor.

<sup>2</sup>Courses must be taken concurrently

**Restrictions and General Information**

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7. Course work graded Pass/Non-Pass cannot count in the minor, and no more than 3 credit hours of course work graded Satisfactory/Unsatisfactory may count toward the minor.
8. No more than 3 credit hours of xx93 may count toward the minor.
9. A student is permitted to count up to 6 total hours of transfer credit and/or credit by examination.

The minor in Human and Animal Interactions is designed for students who wish to develop a broader understanding of the benefits and importance of human and animal interactions. It will appeal to students with interest in understanding the past, present and future of relationships between humans and animals.

**Prerequisite Courses for the minor**

		<b>Credit Hours</b>
ENGLISH	1110 or equivalent	3

The Human and Animal Interactions minor consists of 12 credit hours selected as follows:

**Required Courses: 5 hours**

			<b>Credit Hours</b>
ANIMSCI	2367	Animals in Society	3
ANIMSCI	2400.05	Human and Animal Interactions	2

**Electives: Select a minimum of 7 credit hours from the following courses (total 12 credits minimum)**

ANIMSCI	2000	Animal Handling	2
ANIMSCI	2301	Equine Behavior and Training	3
	<b>OR ANIMSCI 2401</b>	Advanced Equine Behavior and Training	3
ANIMSCI	2400.01 & 3797.01	Equine Studies in Europe	4
ANIMSCI	3797.03	Human & Animal Interactions Study Abroad	3
ANIMSCI	2400.07 & 3797.07	Dairy Industry Outside the US	4
ANIMSCI	4400	Animal Welfare and Behavior in Livestock Industries	3
ANIMSCI	5000	Human Dimension in Animal Sciences	3
ANIMSCI	5400.01	Southern African Animals I	2
ANIMSCI	5400.02	Southern African Animals II	2
ANIMSCI	5551	Equine Assisted Activities and Therapies	2
ANIMSCI	5797.05 <sup>1</sup>	Exotic Animal Behavior and Welfare	3
ENR	3300 <sup>2</sup>	Intro to Forestry, Fisheries, and Wildlife	3
ENR	3470	Religion and Environmental Values in America	3
ENR	4360 <sup>3</sup>	Zoo Science and Management	2

<sup>1</sup> Prerequisite ANIMSCI 5400.01

<sup>2</sup> Prerequisite ENR 2100

<sup>3</sup> Prerequisite ENR 3300

**Restrictions and General Information**

1. The minor is not available to student majoring in Animal Sciences; option as a second minor for Animal Biosciences and Animal Industries specializations.
2. A minor should be declared by the time a student accumulates 60 hours.
3. A minimum 2.00 cumulative point-hour ratio is required in the minor course work; and a minimum grade of a C- is required for each course used to complete the minor.
4. No more than 6 credit hours can overlap between the GE and the minor.
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6. The minor must include at least 6 hours of upper-level or upper-division course work (3000 or above).
7. Course work graded Pass/Non-Pass cannot count in the minor, and no more than 3 credit hours of course work graded Satisfactory/Unsatisfactory may count toward the minor.
8. No more than 3 credit hours of xx93 may count toward the minor.
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The minor in Human and Animal Interactions is designed for students who wish to develop a broader understanding of the benefits and importance of human and animal interactions. It will appeal to students with interest in understanding the past, present and future of relationships between humans and animals.

**Prerequisite Courses for the minor**

		<b>Credit Hours</b>
ENGLISH	1110 or equivalent	3

The Human and Animal Interactions minor consists of 12 credit hours selected as follows:

**Required Courses (5 credit hours):**

			<b>Credit Hours</b>
ANIMSCI	2367	Animals in Society	3
ANIMSCI	2400.05	Human and Animal Interactions	2

**Required Electives: Minimum of 7 credit hours**

ANIMSCI	2000	Animal Handling	2
ANIMSCI	2301	Equine Behavior and Training	3
<b>OR ANIMSCI</b>	<b>2401</b>	<b>Advanced Equine Behavior and Training</b>	<b>3</b>
ANIMSCI	2400.01 & 3797.01	Equine Studies in Europe	4
ANIMSCI	3797.03	Human & Animal Interactions Study Abroad	3
ANIMSCI	2400.07 & 3797.07	Dairy Industry Outside the US	4
ANIMSCI	3180	Introduction to Animal Welfare	2
ANIMSCI	4105	Domestication, Form, & Function of Dogs	3
ANIMSCI	4597	Contemporary Animal Use Issues	3
ANIMSCI	5000	Human Dimension in Animal Sciences	3
ANIMSCI	5551	Equine Assisted Activities and Therapies	2
ENR	3300 <sup>1</sup>	Intro to Forestry, Fisheries, and Wildlife	3
ENR	3470	Religion and Environmental Values in America	3
ENR	4360 <sup>2</sup>	Zoo Science and Management	2

<sup>1</sup> Prerequisite ENR 2100

<sup>2</sup> Prerequisite ENR 3300

**Restrictions and General Information**

1. The minor is not available to student majoring in Animal Sciences; option as a second minor for Animal Biosciences and Animal Industries specializations.
2. A minor should be declared by the time a student accumulates 60 hours.
3. A minimum 2.00 cumulative point-hour ratio is required in the minor course work; and a minimum grade of a C- is required for each course used to complete the minor.
4. No more than 6 credit hours can overlap between the GE and the minor.
5. The minor must contain a minimum of 12 credit hours distinct from the major and/or additional minors.
6. The minor must include at least 6 hours of upper-level or upper-division course work (3000 or above).
7. Course work graded Pass/Non-Pass cannot count in the minor, and no more than 3 credit hours of course work graded Satisfactory/Unsatisfactory may count toward the minor.
8. No more than 3 credit hours of xx93 may count toward the minor.
9. A student is permitted to count up to 6 total hours of transfer credit and/or credit by examination.

The minor in Human and Animal Interactions is designed for students who wish to develop a broader understanding of the benefits and importance of human and animal interactions. It will appeal to students with interest in understanding the past, present and future of relationships between humans and animals.

**Prerequisite Courses for the minor**

		<b>Credit Hours</b>
ENGLISH	1110 or equivalent	3

The Human and Animal Interactions minor consists of 12 credit hours selected as follows:

**Required Courses (5 credit hours):**

			<b>Credit Hours</b>
ANIMSCI	2367	Animals in Society	3
ANIMSCI	2400.05	Human and Animal Interactions	2

**Required Electives: Minimum of 7 credit hours**

ANIMSCI	2000	Animal Handling	2
ANIMSCI	2301	Equine Behavior and Training	3
<b>OR ANIMSCI</b>	<b>2401</b>	<b>Advanced Equine Behavior and Training</b>	<b>3</b>
ANIMSCI	2400.01 & 3797.01	Equine Studies in Europe	4
ANIMSCI	3797.03	Human & Animal Interactions Study Abroad	3
ANIMSCI	2400.07 & 3797.07	Dairy Industry Outside the US	4
ANIMSCI	3180	Introduction to Animal Welfare	2
ANIMSCI	4105	Domestication, Form, & Function of Dogs	3
ANIMSCI	4597	Contemporary Animal Use Issues	3
ANIMSCI	5000	Human Dimension in Animal Sciences	3
ANIMSCI	5551	Equine Assisted Activities and Therapies	2
ENR	3300 <sup>1</sup>	Intro to Forestry, Fisheries, and Wildlife	3
ENR	3470	Religion and Environmental Values in America	3
ENR	4360 <sup>2</sup>	Zoo Science and Management	2

<sup>1</sup> Prerequisite ENR 2100

<sup>2</sup> Prerequisite ENR 3300

**Restrictions and General Information**

1. The minor is not available to student majoring in Animal Sciences; option as a second minor for Animal Biosciences and Animal Industries specializations.
2. A minor should be declared by the time a student accumulates 60 hours.
3. A minimum 2.00 cumulative point-hour ratio is required in the minor course work; and a minimum grade of a C- is required for each course used to complete the minor.
4. No more than 6 credit hours can overlap between the GE and the minor.
5. The minor must contain a minimum of 12 credit hours distinct from the major and/or additional minors.
6. The minor must include at least 6 hours of upper-level or upper-division course work (3000 or above).
7. Course work graded Pass/Non-Pass cannot count in the minor, and no more than 3 credit hours of course work graded Satisfactory/Unsatisfactory may count toward the minor.
8. No more than 3 credit hours of xx93 may count toward the minor.
9. A student is permitted to count up to 6 total hours of transfer credit and/or credit by examination.



**Meat Science Minor**

Food, Agricultural, and Environmental Sciences  
Effective Autumn 2019  
4/7/23

Dr. Lyda G. Garcia, Coordinator  
122B Animal Science Building  
2029 Fyffe Court  
614-292-3642  
[garcia.625@osu.edu](mailto:garcia.625@osu.edu)

A Meat Science minor is for students who wish to develop a better understanding of meat and muscle as a food product. This minor will appeal to students with a general interest in food animal production and be especially helpful for those students who plan to work in food industries or any type of formal agricultural instruction/education settings. The minor is designed to provide students with a general understanding of food animal development with an increased focus on anatomy, muscle biology, meat processing, and food safety.

**Prerequisite Courses for the Minor**

BIOLOGY 1101 or 1113 or 1113H	<u>Credit Hours</u>
	4

A Meat Science minor consists of 15 hours selected as follows:

**Required: 9 hours**

MEATSCI/ANIMSCI	3110	Introductory Meat Science	<u>Credit Hours</u>
MEATSCI	3210/3310	Food Animal Processing OR Meat Animal Carcass Evaluation	3
MEATSCI	4510	Processed Meats	3

**Required Electives: 6 hours**

ANIMSCI	3100*	Animal Growth and Development	3
ANIMSCI	4400*	Animal Welfare and Behavior in Livestock Industries	3
ANIMSCI	5100	Advanced Growth and Development	3
MEATSCI	2010	Bar-B-Q Science	2
MEATSCI	3210	Food Animal Processing	3
MEATSCI	3310	Meat Animal and Carcass Evaluation	3
MEATSCI	4193	Individual Studies **	1-3
MEATSCI	5510	Advanced Meat Science	3
MEATSCI/ANIMSCI	5810	Branded Meat Products	4
AEDECON	3101	Principles of Agribusiness Management	3
AEDECON	3102	Principles of Agribusiness Marketing	3
AEDECON	3103*	Principles of Agribusiness Finance	3
FDSCTE	4410*	HACCP (Hazard Analysis and Critical Control Points)	2
FDSCTE	4536*	Food Safety and Public Health	3
FDSCTE	5310*	Food Quality Assurance	3
FDSCTE	5330*	Food Plant Management	2
FDSCTE	5450*	Food Packaging	3
FDSCTE	5536*	Food Microbiology	3
FDSCTE	5546*	Food Microbiology Lab	3
FDSCTE	5600*	Food Chemistry	3
FDSCTE	5610*	Food Analysis	3

\*Some of the courses among the elective options have prerequisites, e.g. some of the FDSCTE courses require FDSCTE 2400 as a prerequisite.



\*\*Individual Studies (MEATSCI 4193) — Students can complete up to three of the following short course programs for 1 credit hour each. Descriptions of these short courses are available at <https://meatsci.osu.edu>

- Introductory HACCP Training for Meat and Poultry Processors<sup>1</sup>
- Advanced HACCP Training for Meat and Poultry Processors<sup>1</sup>
- Sausage/Processed Meats Short Course
- Thermal Processing of RTE Meat Products Short Course
- Lamb/Beef/Pork 509 Short Course<sup>2</sup>

<sup>1</sup>Contact: Dr. C. Lynn Knipe ([knipe.1@osu.edu](mailto:knipe.1@osu.edu)) for additional information on the HACCP training courses.

<sup>2</sup>Contact: Dr. Lyda G. Garcia ([garcia.625@osu.edu](mailto:garcia.625@osu.edu)) for additional information on 509 workshops.

### **Restrictions and General Information**

1. This minor is not available to students majoring in Meat Sciences.
2. A minor should be declared by the time a student accumulates 60 hours.
3. A minimum 2.00 cumulative point-hour ratio is required in the minor course work; and a minimum grade of a C- is required for each course used to complete the minor.
4. A student is permitted to overlap up to 6 credit hours between the GE and a minor.
5. The minor must contain a minimum of 12 credit hours distinct from the major and/or additional minors (i.e. if a minor requires more than 12 credit hours, a student is permitted to overlap those hours beyond 12 with the major or with another minor).
6. The minor must include at least 6 hours of upper-level or upper-division course work (3000 or above).
7. Course work graded Pass/Non-Pass cannot count in the minor, and no more than 3 credit hours of course work graded Satisfactory/Unsatisfactory may count toward the minor.
8. No more than 3 credit hours of xx93 may count toward the minor.
9. A student is permitted to count up to 6 total hours of transfer credit and/or credit by examination.

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A Meat Science minor is for students who wish to develop a better understanding of meat and muscle as a food product. This minor will appeal to students with a general interest in food animal production and be especially helpful for those students who plan to work in food industries or any type of formal agricultural instruction/education settings. The minor is designed to provide students with a general understanding of food animal development with an increased focus on anatomy, muscle biology, meat processing, and food safety.

**Prerequisite Courses for the Minor**

BIOLOGY 1101 or 1113 or 1113H

Credit Hours

4

A Meat Science minor consists of ~~15-14~~ hours selected as follows:

**Required: (69 credit hours):**

			<u>Credit Hours</u>
MEATSCI/ANIMSCI	3110	Introductory Meat Science	3
MEATSCI	3210/3310	<del>Food Animal Processing OR Meat Animal Carcass Evaluation</del>	<del>3</del>
MEATSCI	4510	Processed Meats	3

**Required Electives: Minimum of 6-58 hours**

ANIMSCI	3100*	Animal Growth and Development	3
ANIMSCI	4400*	<del>Animal Welfare and Behavior in Livestock Industries</del>	<del>3/180</del>
	3	Introduction to Animal Welfare	3
ANIMSCI/FDSCTE	4035	Pet Food Production – From Concept to Consumer	3
ANIMSCI	5100	<del>Advanced Growth and Development</del>	<del>3</del>
MEATSCI	2010	Bar-B-Q Science	2
MEATSCI	3210	<del>Food Animal Processing (if not taken above)</del>	<del>3</del>
MEATSCI	3310	Meat Animal and Carcass Evaluation <del>(if not taken above)</del>	3
MEATSCI	4510	Processed Meats	3
MEATSCI	4193	Individual Studies **	1-3
MEATSCI	5510	Advanced Meat Science	3
MEATSCI/ANIMSCI	5810	Branded Meat Products	4
AEDECON	3101	<del>Principles of Agribusiness Management</del>	<del>3</del>
AEDECON	3102	<del>Principles of Agribusiness Marketing</del>	<del>3</del>
AEDECON	3103*	<del>Principles of Agribusiness Finance</del>	<del>3</del>
FDSCTE	4410*	HACCP (Hazard Analysis and Critical Control Points)	2
FDSCTE	4536*	Food Safety and Public Health	3
FDSCTE	5310*	Food Quality Assurance	3
FDSCTE	5330*	Food Plant Management	2
FDSCTE	5450*	Food Packaging	3
FDSCTE	5536*	Food Microbiology	3
FDSCTE	5546*	Food Microbiology Lab	3
FDSCTE	5600*	Food Chemistry	3
FDSCTE	5610*	Food Analysis	3

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~~6.5.~~ The minor must include at least 6 hours of upper-level or upper-division course work (3000 or above).

~~7.6.~~ Course work graded Pass/Non-Pass cannot count in the minor, and no more than 3 credit hours of course work graded Satisfactory/Unsatisfactory may count toward the minor.

~~8.7.~~ No more than 3 credit hours of xx93 may count toward the minor.

~~9.8.~~ A student is permitted to count up to 6 total hours of transfer credit and/or credit by examination.



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**Prerequisite Courses for the Minor**

BIOLOGY 1101 or 1113 or 1113H

Credit Hours

4

A Meat Science minor consists of 14 hours selected as follows:

**Required (6 credit hours):**

MEATSCI/ANIMSCI	3110	Introductory Meat Science
MEATSCI	3210	Food Animal Processing

Credit Hours

3

3

**Required Electives: Minimum of 8 hours**

ANIMSCI	3100	Animal Growth and Development
ANIMSCI	3180	Introduction to Animal Welfare
ANIMSCI/FDSCTE	4035	Pet Food Production – From Concept to Consumer
MEATSCI	2010	Bar-B-Q Science
MEATSCI	3310	Meat Animal and Carcass Evaluation
MEATSCI	4510	Processed Meats
MEATSCI	4193	Individual Studies **
MEATSCI	5510	Advanced Meat Science

3

3

3

2

3

3

1-3

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