



# ISU CVM Food Animal and Mixed Animal Options for VM4 Students 2024-2025



# Mixed Animal and Food Animal Prerequisite Courses

## **VDPAM 310: (Offered Spring of VM 2 or 3) needed for:**

- VDPAM 420: Preceptorships in Veterinary Medicine Practice
- VDPAM 421: Great Plains Veterinary Education Center
- VDPAM 424: Preceptorship in Veterinary Pathology
- VDPAM 463X: Feedlot Production Medicine
- VDPAM 476: Food Animal & Camelid Field Service
- VDPAM 479: Applied Swine Production Medicine Preceptorship
- VDPAM 480: Swine Production Medicine Clinical Rotation
- VDPAM 481: Advanced Cow/Calf Production Medicine
- VDPAM 482: Applied Beef Production Medicine
- VDPAM 483: Beef Production Medicine
- VDPAM 484: Dairy Production Medicine
- VDPAM 485: Applied Dairy Production Medicine Preceptorship

# Mixed Animal and Food Animal Prerequisite Courses

**VDPAM 351: (Offered Spring VM2&3) needed for:**

- Embryo Transfer – 451

**VDPAM 312: (Offered Spring VM1) needed for:**

- Clinical Rotation in Animal Welfare – 465

**2 Semesters of VDPAM 436 or UNL equivalent V MED 596 Cattle Production:  
(Offered Fall & Spring VM 1-3) needed for:**

- Advanced Cow/Calf Production Medicine – 481

**VDPAM 455: (Offered Fall & Spring VM 4) needed for:**

- Preceptorship in Diagnostic Pathology – 424

**VDPAM 484: (Offered Summer VM 4) needed for:**

- Advanced Dairy Production Medicine – 494

**VDPAM 486: (Offered Spring of VM 1-3) needed for:**

- Advanced Small Ruminant Production Medicine – 495

# Required Courses

(In addition to the core)

## Mixed Animal

- **VCS 452**
  - Dermatology
- **VCS 469**
  - Ophthalmology

## Food Animal

- **VDPAM 455/488**
  - Diagnostic Lab
  - Clinical Microbiology
- **VDPAM 476**
  - Food Animal and Camelid Field Services



# Mixed Animal vs. Food Animal: Selective Courses

## Mixed Animal

- **8 Credits:**
  - 6 from Food Animal or Equine
  - 2 from Small Animal

## Food Animal

- **10 Credits:**
  - Any VDPAM rotation



# Mixed Animal vs. Food Animal: Elective Courses

## Mixed Animal

- **12 Credits:**
  - Any CVM elective
  - Preceptorships included

## Food Animal

- **10 Credits:**
  - Any CVM elective
  - Preceptorships included





# VDPAM Elective Focus Areas

- Beef Cattle
- Dairy Cattle
- Small Ruminant
- Swine
- Poultry
- Animal Welfare
- Broad application, food animal experiences



VDPAM VM4 Rotations: 2024-2025

| Start date | End date | Block   |      |      |         |     |      |      |     | Holidays Included |                        |
|------------|----------|---------|------|------|---------|-----|------|------|-----|-------------------|------------------------|
| 5/9/24     | 5/27/24  | 1 & 2   | 451  | 471E |         | 484 | 480  | 471F | 476 | 477               |                        |
| 5/28/24    | 6/9/24   | 3 & 4   |      | 471E |         |     | 478B | 471F | 476 | 477               | Memorial Day           |
| 6/10/24    | 6/23/24  | 5 & 6   | 451  | 471E | 465     | 484 |      | 471F | 476 | 477               |                        |
| 6/24/24    | 7/7/24   | 7 & 8   | 498X | 471E |         |     |      |      | 476 | 477               | Independence Day       |
| 7/8/24     | 7/21/24  | 9 & 10  |      |      |         |     | 480  |      | 476 | 477               |                        |
| 7/22/24    | 8/4/24   | 11 & 12 |      |      |         |     |      |      | 476 | 477               |                        |
| 8/5/24     | 8/18/24  | 13 & 14 |      |      |         |     |      |      | 476 | 477               | State Fair             |
| 8/19/24    | 9/2/24   | 15 & 16 |      | 471C | 455/488 |     |      |      | 476 | 477               |                        |
| 8/26/24    | 8/30/24  | 16 only | 463  |      |         |     |      |      |     |                   |                        |
| 9/3/24     | 9/15/24  | 17 & 18 |      | 471C |         |     |      |      | 476 | 477               | Labor Day              |
| 9/16/24    | 9/29/24  | 19 & 20 | 465  | 471C | 455/488 |     |      |      | 476 | 477               |                        |
| 9/30/24    | 10/13/24 | 21 & 22 | 451  | 471C |         |     | 480  |      | 476 | 477               |                        |
| 10/14/24   | 10/27/24 | 23 & 24 |      |      | 455/488 |     | 478A | 483  | 476 | 477               |                        |
| 10/28/24   | 11/10/24 | 25 & 26 | 451  |      | 455/488 | 495 |      |      | 476 | 477               |                        |
| 11/11/24   | 11/24/24 | 27 & 28 |      |      |         |     |      | 483  | 476 | 477               |                        |
| 11/25/24   | 12/8/24  | 29 & 30 |      |      | 455/488 |     |      |      | 476 | 477               | Thanksgiving (2 days)  |
| 12/9/24    | 12/22/24 | 31 & 32 |      |      |         |     |      |      | 476 | 477               |                        |
| 12/23/24   | 1/5/25   | 33 & 34 |      |      |         |     |      |      | 476 | 477               | Christmas              |
| 1/6/25     | 1/20/25  | 35 & 36 |      |      |         |     |      |      | 476 | 477               | New Years              |
| 1/21/25    | 2/2/25   | 37 & 38 | 451  |      | 455/488 |     | 478B |      | 476 | 477               |                        |
| 2/3/25     | 2/16/25  | 39 & 40 | 494  | 471E | 455/488 | 495 | 480  | 471F | 476 | 477               | Martin Luther King Day |
| 2/17/25    | 3/2/25   | 41 & 42 |      | 471E |         |     |      | 471F | 476 | 477               |                        |
| 3/3/25     | 3/16/25  | 43 & 44 | 494  | 471E |         |     |      | 471F | 476 | 477               |                        |
| 3/17/25    | 3/30/25  | 45 & 46 | 451  | 471E | 455/488 | 481 | 480  | 471F | 476 | 477               | Spring Break           |
| 3/31/25    | 4/13/25  | 47 & 48 |      | 471E | 455/488 |     | 478A | 471F | 476 | 477               |                        |
| 4/14/25    | 4/27/25  | 49 & 50 | 451  | 471E | 455/488 | 481 | 478C | 471F | 476 | 477               |                        |
| 4/21/25    | 4/25/25  | 50 only | 463  |      |         |     |      |      |     |                   |                        |
| 4/28/25    | 5/15/25  | 51 & 52 |      | 471E |         |     |      | 471F | 476 | 477               |                        |

|   |  |  |  |   |
|---|--|--|--|---|
| 451: Embryo Transfer - Dohlman                          | 471C: Comparative Therio - Dohlman       | 476: Food Animal & Camelid Field Services - Hindman                | 478C: SMEC Emerging Disease Dx & Management - Karriker | 494: Advanced Dairy Production Medicine - Gorden  |
| 455: Dlab - Mainenti/Sieper<br>488: Clin Micro - Macedo | 471E: Equine Therio - Beachler           | 477: Food Animal and Camelid Med & Surgery - Meira                 | 480: Swine Production Medicine - Karriker              |   |
| 463: Iowa Feedlot - G Dewell                            | 471F: Food Animal Therio - Messerschmidt | 478A: SMEC Swine Production Management & Consultation - Karriker   | 481: Advanced Cow/Calf Prod Medicine - Engelken        | 495: Small Ruminant Production Medicine - Plummer |
| 465: Animal Welfare - Millman                           | 471S: Small Animal Therio                |  | 483: Beef Production Medicine - Engelken               | 498X: Poultry Medicine - Sato                     |
|   |  | 478B: SMEC Clinical Pharmacology & Treatment Management - Karriker | 484: Dairy Production Medicine - Gorden                |   |



## GPVEC 2024-2025 Rotation Schedule

| Start date | End date   | Block   | Course                          |                          | Holidays Included      |
|------------|------------|---------|---------------------------------|--------------------------|------------------------|
| 5/9/2024   | 5/27/2024  | 1 & 2   |                                 |                          |                        |
| 5/28/2024  | 6/9/2024   | 3 & 4   |                                 |                          | Memorial Day           |
| 6/10/2024  | 6/23/2024  | 5 & 6   |                                 |                          |                        |
| 6/24/2024  | 7/7/2024   | 7 & 8   |                                 |                          | Independence Day       |
| 7/8/2024   | 7/21/2024  | 9 & 10  |                                 |                          |                        |
| 7/22/2024  | 8/4/2024   | 11 & 12 |                                 |                          |                        |
| 8/5/2024   | 8/9/2024   | 13      |                                 |                          | State Fair             |
| 8/12/2024  | 8/16/2024  | 14      | 421E: Calf Weaning Management   |                          | State Fair             |
| 8/19/2024  | 8/27/2023  | 15      | 421S: Ultrasound Pregnancy Exam | 421D: Feedlot Management |                        |
| 8/26/2024  | 8/30/2024  | 16      |                                 |                          |                        |
| 9/3/2024   | 9/15/2024  | 17 & 18 |                                 |                          | Labor Day              |
| 9/16/2024  | 9/29/2024  | 19 & 20 |                                 |                          |                        |
| 9/30/2024  | 10/4/2024  | 21      | 421S: Ultrasound Pregnancy Exam |                          |                        |
| 10/7/2024  | 10/11/2024 | 22      | 421S: Ultrasound Pregnancy Exam |                          |                        |
| 10/14/2024 | 10/27/2024 | 23 & 24 |                                 |                          |                        |
| 10/28/2024 | 11/10/2024 | 25 & 26 |                                 |                          |                        |
| 11/11/2024 | 11/24/2024 | 27 & 28 |                                 |                          |                        |
| 11/25/2024 | 12/8/2024  | 29 & 30 |                                 |                          | Thanksgiving (2 days)  |
| 12/9/2024  | 12/22/2024 | 31 & 32 |                                 |                          |                        |
| 12/23/2024 | 1/5/2025   | 33 & 34 |                                 |                          | Christmas / New Years  |
| 1/6/2025   | 1/10/2025  | 35      |                                 |                          |                        |
| 1/13/2025  | 1/17/2025  | 36      | 421K: Equine Dentistry          |                          |                        |
| 1/21/2025  | 1/24/2025  | 37      |                                 |                          |                        |
| 1/27/2025  | 1/31/2025  | 38      | 421R: Flock Management          |                          |                        |
| 2/3/2025   | 2/16/2025  | 39 & 40 |                                 |                          | Martin Luther King Day |
| 2/17/2025  | 3/2/2025   | 41 & 42 |                                 |                          |                        |
| 3/3/2025   | 3/7/2025   | 43      | 421Q: Swine Pathology           |                          |                        |
| 3/10/2025  | 3/14/2025  | 44      | 421A: Calving                   | 421J: Lambing            |                        |
| 3/17/2025  | 3/21/2025  | 45      | 421A: Calving                   | 421J: Lambing            | Spring Break           |
| 3/24/2025  | 3/28/2025  | 46      | 421A: Calving                   | 421J: Lambing            | Spring Break           |
| 3/31/2025  | 4/13/2025  | 47 & 48 |                                 |                          |                        |
| 4/14/2025  | 4/18/2025  | 49      | 421D: Feedlot Management        |                          |                        |
| 4/21/2025  | 4/25/2025  | 50      | 421B: Bull Breeding Soundness   |                          |                        |
| 4/28/2025  | 5/8/2025   | 51 & 52 |                                 |                          |                        |

|                               |  |
|-------------------------------|--|
| 421A: Calving                 | 421J: Lambing                          |
| 421B: Bull Breeding Soundness | 421K: Equine Dentistry                 |
| 421D: Feedlot Management      | 421R: Flock Management                 |
| 421E: Calf Weaning Management | 421S: Ultrasound Pregnancy Examination |
| 421Q: Swine Pathology         |  |

All courses are one week in duration, starting on Monday and ending on Friday unless otherwise noted

# Great Plains Veterinary Educational Center (GPVEC)

- One week, hands on rotations with feedlot cattle, calving, lambing, dentistry and large animal surgery.
  - Travel to sites (student's responsibility) and overnight stays are required.
- Refer to GPVEC website for full course descriptions
  - <http://gpvec.unl.edu/handbook/default.asp>
- Contact Dr. Terry Engelken for questions



# Great Plains Veterinary Educational Center

- VDPAM 421A: Calving Season Management
- VDPAM 421B: Bull Breeding Soundness
- VDPAM 421D: Feedlot Production Management and Health Consulting
- VDPAM 421E: Calf Weaning Management (Preconditioning)
- VDPAM 421J: Lambing
- VDPAM 421K: Equine Dentistry
- VDPAM 421Q: Swine Pathology
- VDPAM 421R: Flock Management
- VDPAM 421S: Ultrasound Pregnancy Examination



# Beef Cattle Electives



# Beef Cattle Electives

## Campus Based Rotations

- **VDPAM 481:** Adv Cow/Calf Production
- **VDPAM 483:** Beef Production Medicine
- **VDPAM 463:** Feedlot Production Medicine

## Off Campus Rotations

- **VDPAM 421:** Great Plains Veterinary Education Center rotations
- **VDPAM 482:** Beef Production Medicine Preceptorship





# Beef Cattle: On Campus

- **VDPAM 481: Adv. Cow/Calf Production Medicine: Dr. Terry Engelken**
  - Focus on evidence based medicine, epidemiology, and economics of production using partial budgeting models. Offered twice. Class limit 15. **Prereq: VDPAM 310 and 2 semesters of VDPAM 436 or VMED 596 Cattle Production (UNL course)**
- **VDPAM 483: Beef Production Medicine: Dr. Terry Engelken**
  - Exposure to cow-calf and feedlot production concepts. Field trips are incorporated whenever possible. May include a one week visit to GPVEC. Offered twice times. Class limit 15. **Prereq: VDPAM 310**
- **VDPAM 463: Feedlot Production Medicine: Dr. Grant Dewell**
  - Concurrent enrollment in VDPAM 421D (Feedlot Management) at GPVEC. This course will focus on Iowa feedlot production methods and will build on the information presented at GPVEC. Offered twice. Class limit 6. **Prereq: VDPAM 310 and concurrent enrollment in VDPAM 421D.**





# Beef Cattle: Off Campus

- **VDPAM 482: Applied Beef Production Medicine Preceptorship: Dr. Terry Engelken**



# “Roadmap” for Beef Cattle Focus

Contact Drs. Terry Engelken or Grant Dewell

- VDPAM 309: Intro to Production Animal Informatics
- VDPAM 310: Introduction to Production Animal Medicine
- VDPAM 436: Beef Records Analysis (at least 2 semesters)
- GPVEC (VDPAM 421): x 2-3 rotations
- VDPAM 455/488: Clinical Micro & Diagnostic Lab
- VDPAM 463: Iowa Feedlot
- VDPAM 481: Adv. Cow/Calf Production Medicine
- VDPAM 482: Applied Beef Production Medicine x 2
- VDPAM 483: Beef Production Medicine



# Dairy Electives



Photo Courtesy of Tracy Raef

# Dairy Electives

## Campus Based Rotations

- **VDPAM 484:** Dairy Production Medicine
- **VDPAM 494:** Adv. Dairy Production Medicine

## Off Campus Based Rotations

- **VDPAM 485:** Applied Dairy Production Medicine Preceptorship



# Dairy Cattle: On Campus

- **VDPAM 484: Dairy Production Medicine: Dr. Pat Gorden**
  - On farm introduction to dairy management aspects. Interpretation of computerized records, reproduction programs, milk quality, welfare and nutrition. Offered twice. Class limit of 20. **Travel to ISU dairy farm (student's responsibility) is required. Prereq: VDPAM 310**
- **VDPAM 494: Adv. Dairy Production Medicine: Dr. Pat Gorden**
  - Advanced coverage of dairy herd problems. On farm investigations of milk quality and nutrition related problems will be emphasized. Prerequisite VDPAM 484. Offered twice. Class limit of 6. **Travel to ISU dairy farm (student's responsibility) is required. Prereq: VDPAM 484**



# “Roadmap” for Dairy Focus

Contact Dr. Gorden

- VDPAM 309: Intro to Production Animal Informatics
- VDPAM 310: Introduction to Production Animal Medicine
- VDPAM 351: Bovine Embryo Transfer
- VDPAM 402: Dairy Records
- VDPAM 416: Bovine Reproduction Evaluation Laboratory
- VDPAM 451: Clinical Embryo Transfer
- VDPAM 471: Theriogenology: Food Animal
- VDPAM 476: Food Animal & Camelid Field Services
- VDPAM 477: Food Animal & Camelid Medicine and Surgery
- VDPAM 484: Dairy Production Medicine
- VDPAM 485: Applied Dairy Production Medicine Preceptorship
- VDPAM 494: Advanced Dairy Prod Medicine





# Small Ruminant Electives



# Small Ruminant Electives

- **VDPAM 495: Small Ruminant Production Medicine: Dr. Rachel Friedrich**
  - Exposure to meat and dairy goat, sheep and camelid production practices. Field trips are incorporated to highlight topics. Offered twice. Class limit of 12. **Travel to sites, (student's responsibility) with possible overnight stays, is required.**
  - **Prerequisite: VDPAM 486**
- Also get a fair amount of small ruminant experiences in
  - Food Animal Medicine and Surgery (VDPAM 477)
  - Food Animal Field Services (VDPAM 476)



# “Roadmap” for Small Ruminant Focus

- VDPAM 309: Intro to Production Animal Informatics
- VDPAM 310: Introduction to Production Animal Medicine
- VDPAM 486: Introduction to Small Ruminant Production Medicine (Prerequisite for VDPAM 495)
- VDPAM 476: Food Animal & Camelid Field Service x 2-3
- VDPAM 477: Food Animal & Camelid Medicine and Surgery x 2 (once in Fall and once in Spring)
- VDPAM 495: Small Ruminant Production Medicine





# Swine Electives



# Swine Electives

## Campus Based Rotations

- **VDPAM 478B:** Swine Clinical Pharmacology & Treatment Management
- **VDPAM 478C:** Swine Emerging Diseases and Emergency Response Management
- **VDPAM 480:** Swine Production Medicine Clinical Rotation

## Off Campus Based Rotations

- **VDPAM 478A:** Swine Production Management & Consultation
- **VDPAM 479:** Applied Swine Production Medicine Preceptorship



# Swine: On Campus

- **VDPAM 480: Swine Production Medicine Clinical Rotation: Drs. Justin Brown & Locke Karriker**
  - **THE SWINE MEDICINE COURSE**
    - No other swine course takes you through an entire case from evaluation to diagnosis to recommendations
    - **YOU are the vet**
  - **Prerequisite: VDPAM 310**
  - Will be able to perform a complete site assessment on various phases of swine production including a sow farm and wean-to-finish sites
  - Will have the basic competencies of animal handling and restraint, ante-mortem and post-mortem diagnostic sample collection, and humane euthanasia
  - Will be competent in detailing the history, evaluation, diagnostic sampling, results, and interpretation of the sites visited
  - Will be able to analyze post-mortem samples and learn the process of submitting diagnostic samples to the Iowa State Veterinary Diagnostic Laboratory and will work through these submissions with a diagnostician
  - Will learn how to complete a veterinary feed directive (VFD) form, CVI and different methodologies to calculate water medications for a barn





# Swine: On Campus

- **VDPAM 478B: Swine Clinical Pharmacology & Treatment Management:  
Dr. Locke Karriker**
  - Offered two times: class limit of 10
  - Select and adjust dose regimens and dose calculations for individual and herd treatment, control and prevention of swine disease
  - Modify treatment regimens based on swine specific physiology and environmental influences on drug selection in food animals
  - Analyze, evaluate and recommend improvements to water medication administration and pharmaceutical interventions
  - Explain client safety, food safety, and the influence of animal behavior on drug consumption and efficacy
  - Ensure compliance with the web of regulatory requirements for treatment of food animals



# Swine: On Campus

- **VDPAM 478C: Swine Emerging Diseases and Emergency Response Management: Dr. Justin Brown**
  - Offered once in the spring: class limit of 10
  - **Prerequisite: VDPAM 480**
  - General knowledge of disease elimination techniques and other evidenced based methods to manage/minimize losses for an affected herd
  - Will be able to effectively use advanced sampling techniques for diagnostics
  - Will be able to analyze and evaluate diagnostic reports and elimination/management strategies
  - Will learn the principles commonly applied to commercial production to minimize economic losses due to disease
  - Will learn how to prepare for and respond to foreign animal disease outbreaks and emergency situations
  - Will have a general knowledge of emerging diseases and disease threats to the US swine herd



# Swine: Off Campus

- **VDPAM 478A: Swine Production Management & Consultation:**  
**Drs. Justin Brown, Josh Ellingson, Paul Thomas, and Katie Beckman**
  - Location: Audubon, IA (ISU Transportation provided to commute)
  - Offered two times. Class limit of 10.
  - Develop an understanding of common swine consulting areas within pork production
  - Learn about the interaction of veterinary medicine and swine commercial production
  - Become familiar with key performance indicators and process improvement within commercial production
  - Develop an understanding of how to work within a production system across multiple locations
  - Gain experience working with daily animal caretakers and large production system owner/operators
- **VDPAM 479: Applied Swine Production Medicine Preceptorship:**  
**Dr. Locke Karriker**



# Swine Medicine Education Center (SMEC)

- Additional training modules available online (<http://smec.iastate.edu>)
  - No charges for any ISU student!!
  - NAVLE Swine Preparation: SMEC DAILY LEARN DAILY question
- **Get Involved!**
  - Gain additional experience in swine production and medicine methodologies
    - Help create training videos
    - Assist with field research projects



# “Roadmap” for Swine Focus

## Contact Drs. Karriker or Brown

- VDPAM 308: Spanish for Veterinarians
- VDPAM 309: Intro to Production Animal Informatics
- VDPAM 310: Introduction to Production Animal Medicine
- VDPAM 419: Advanced Swine Production Informatics
- VDPAM 478A: Swine Production Management and Consultation
- VDPAM 478B: Swine Clinical Pharmacology and Treatment Management
- VDPAM 478C: Swine Emerging Diseases and Emergency Response Management
- VDPAM 479: Applied Swine Production Med x 2-3
- VDPAM 480: Swine Production Medicine Clinical Rotation x 2
- Contact Dr. Karriker for access to Swine Medicine Education Center (SMEC) training modules and the Digital Library
- Attend AASV Meeting, ISU Swine Disease Meeting, and/or Lemans Conference
- Seek Summer Swine Veterinary Internship Opportunities





# Poultry Electives



Photo courtesy of John Barnes, NC State



# Poultry Electives

- **VDPAM 408: Poultry Medicine and Disease Prevention: Dr. Yuko Sato**
  - Offered to 2<sup>nd</sup> and 3<sup>rd</sup> year veterinary students
  - Didactic lectures with guest lecturers from industry professional
  - Additional wet labs with introduction to poultry necropsy
- **VDPAM 498X/VM6018: Poultry Medicine: Drs. Rob Porter and Yuko Sato**
  - Small group, on-farm/off-farm activities to get an introduction to commercial layers, broilers, turkeys, gamebirds, +/- backyard poultry. Focus on flock medicine, on-farm necropsy, diagnostics, vaccinology, preventative medicine, public health. Guest lectures from industry professionals on current topics.
  - 2-week rotation co-taught by Dr. Rob Porter from University of Minnesota. Students co-mingled from both schools.
  - 1 week in Iowa, 1 week in Minnesota (travel, overnight stays required).
  - Class limit of 8; 16 students total with UMN
  - Farm site visits/lecturers are different for each rotation



# “Roadmap” for Poultry Focus

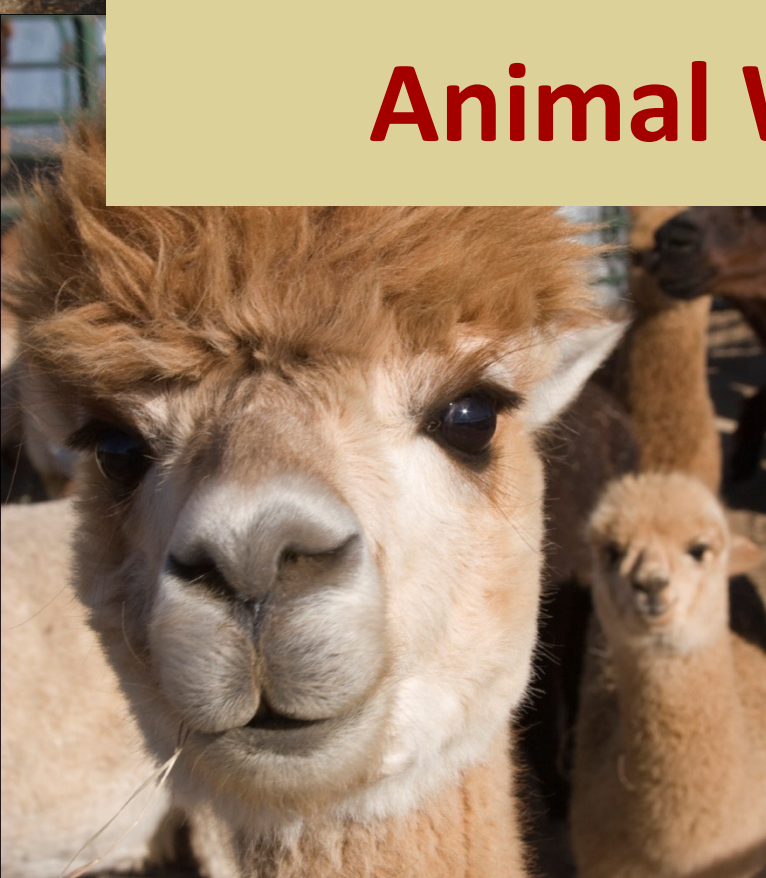
Contact Dr. Yuko Sato

- VDPAM 408: Poultry Medicine and Disease Prevention
- VDPAM 420P: Poultry Preceptorship
- VDPAM 498/VM6018: Poultry Medicine
- Midwest Poultry Consortium – University of Wisconsin
- Externships!
- Meetings/networking!





# Animal Welfare Electives





# Welfare Electives

- **VDPAM 465: Animal Welfare: Dr. Suzanne Millman:**
  - Students will explore and utilize animal welfare assessment programs used in State, Federal and International food animal production systems, as well as inspection protocols used for animal cruelty response and for licensing of commercial companion animal, entertainment (zoo, racing) and laboratory animal research facilities. Students will develop skills in collecting and analyzing different types of animal welfare data, advising clients in identifying and achieving animal welfare goals, and communication. Offered 1-2 times. Class limit of 15. **Travel to food animal and companion animal facilities is required.**



# Welfare Electives

- **VDPAM 466: Preceptorship in Animal Welfare: Dr. Suzanne Millman**
  - Preceptorship in animal welfare with emphasis on animal welfare assessment, policy and problem solving. Mentors include practicing veterinarians, researchers and/or animal welfare organizations. Pre-approval needed from Dr. Millman. Offered any approved time block.





# “Roadmap” for Animal Welfare

## Focus

Contact Dr. Millman

- VDPAM 312: Introduction to Animal Welfare (Core requirement)
- VDPAM 365: Animal Welfare Judging (Offered Fall)
- BMS 403: Behavior of Domestic Animals (Offered Alternate Fall, even years)
- VDPAM 465: Animal Welfare
- VDPAM 466: Preceptorship in Animal Welfare

Note: Animal welfare specialization includes food, companion, equine and exotic species





# Broad, Multi-Species Electives



# Broad and Multi-Species

- **VDPAM 451: Clinical Embryo Transfer: Dr. Tyler Dohlman**
  - Experience in embryo transfer and related reproductive techniques. Review of reproductive physiology, synchronization protocols, donor and recipient management. Practical experience in embryo collection and transfer. Offered 7 times. Class limit of 4. **Travel to ISU/ARS farms (student's responsibility) is required.**
- **VDPAM 455: Diagnostic Laboratory: Drs. Marta Mainenti and Chris Siepker and VDPAM 488: Clinical Microbiology: Dr. Nubia Macedo**
  - Practical experience in diagnosis for livestock diseases through exposure to cases submitted to the ISU Veterinary Diagnostic Lab. Application of microbiological and immunological procedure to diagnose livestock diseases. Offered 10 times. Class limit of 7.





# Broad and Multi-Species

- **VDPAM 465: Animal Welfare: Dr. Suzanne Millman**
  - Students will explore and utilize animal welfare assessment programs used in State, Federal and International food animal production systems, as well as inspection protocols used for animal cruelty response and for licensing of commercial companion animal, entertainment (zoo, racing) and laboratory animal research facilities. Students will develop skills in collecting and analyzing different types of animal welfare data, advising clients in identifying and achieving animal welfare goals, and communication. Offered 1-2 times. Class limit of 15. **Travel to food animal and companion animal facilities is required.**
- **VDPAM 476: Food Animal & Camelid Field Service: Dr. Megan Hindman**
  - Assist ISU veterinarians with delivering health care to food animal and camelid client farms in the region. Offered ALL blocks. Class limit of 6. **Travel to sites is required. Prereq. VDPAM 310.**



# “Roadmap” for Production Animal Focus

Contact any VDPAM faculty member

- VDPAM 310: Introduction to Production Animal Medicine
- VDPAM 420: Preceptorship in Production Animal Medicine
- VDPAM 455: Diagnostic Laboratory Practicum
- VDPAM 471: Theriogenology: Food Animal
- VDPAM 476: Food Animal & Camelid Field Services x 2-3
- VDPAM 477: Food Animal & Camelid Medicine and Surgery x 2-3
- VDPAM 480: Swine Production Medicine
- VDPAM 483: Beef Production Medicine
- VDPAM 484: Dairy Production Medicine
- VDPAM 486: Introduction to Small Ruminant Production Medicine





# Preceptorship Options

- **VDPAM 420:** Preceptorship in Veterinary Medical Practice:
  - 420A: Mixed Animal Practice with Food Animal Emphasis
    - Dr. Terry Engelken [engelken@iastate.edu](mailto:engelken@iastate.edu) 294-2192
  - 420B: General Mixed Animal Practice
    - Dr. Mitch Hiscocks [mhscx@iastate.edu](mailto:mhscx@iastate.edu) 294-1234
  - 420C: Government Agency or Food Processing Company
    - Dr. Alyona Michael [advonina@iastate.edu](mailto:advonina@iastate.edu) 294-9019
  - 420P: Poultry
    - Dr. Yuko Sato [ysato@iastate.edu](mailto:ysato@iastate.edu) 294-0710
- **VDPAM 424:** Preceptorship in Diagnostic Pathology:
  - Dr. Pablo Pineyro [pablop@iastate.edu](mailto:pablop@iastate.edu) 294-6250
- **VDPAM 466:** Preceptorship in Animal Welfare:
  - Dr. Suzanne Millman [smillman@iastate.edu](mailto:smillman@iastate.edu) 294-2817
- **VDPAM 479:** Swine Production Medicine Preceptorship:
  - Dr. Locke Karriker [karriker@iastate.edu](mailto:karriker@iastate.edu) 294-2283
- **VDPAM 482:** Beef Production Medicine Preceptorship:
  - Dr. Terry Engelken [engelken@iastate.edu](mailto:engelken@iastate.edu) 294-2192
- **VDPAM 485:** Dairy Production Medicine Preceptorship:
  - Dr. Pat Gorden [pgorden@iastate.edu](mailto:pgorden@iastate.edu) 294-3096



# Preceptorship Options

- All must be approved by course instructor at least 30 days prior to departure
- VDPAM Preceptorship Applications must include course number, date of preceptorship, mentor, mentor email, location, and signature of instructor
- Save paper and facilitate process: Instructors can sign the form electronically



# Faculty Contacts

|  |          |          |
|--|----------|----------|
| • Dr. Locke Karriker (479, 480)                | karriker | 294-2283 |
| • Dr. Justin Brown (478)                       | brownjt  | 294-4508 |
| • Dr. Mitch Hiscocks (420B)                    | mhscx    | 294-1720 |
| • Dr. Megan Hindman (476)                      | mpieters | 294-7595 |
| • Dr. Pablo Pineyro (424)                      | pablop   | 294-6250 |
| • Dr. Alyona Michael (420C)                    | avdonina | 294-9019 |
| • Dr. Rachel Derscheid (455)                   | rdersch  | 294-1173 |
| • Dr. Grant Dewell (463)                       | gdewell  | 294-2822 |
| • Dr. Tyler Dohlman (451, 471C)                | tdohlman | 294-1095 |
| • Dr. Caitlin Wiley (471F)                     | cwiley   | 294-2798 |
| • Dr. Eleas Wu (471E,S)                        | eleaswu  | 294-5012 |
| • Dr. Theresa Beachler (471E,S)                | beachler | 294-2639 |
| • Dr. Terry Engelken (420A, 421, 422, 481,483) | engelken | 294-2192 |
| • Dr. Pat Gorden (484, 485, 494)               | pgorden  | 294-3096 |
| • Dr. Enoch Meira (477)                        | enochb   | 294-7463 |
| • Dr. Drew Magstadt (455)                      | magstadt | 294-1950 |
| • Dr. Suzanne Millman (465, 466)               | smillman | 294-2817 |
| • Dr. Rachel Friedrich (495)                   | rachfred | 294-1185 |
| • Dr. Nubia Macedo (488)                       | nubia    | 294-9074 |
| • Dr. Yuko Sato (420P, 498)                    | ysato    | 294-0719 |



# Links/Sites for Information

- **Curriculum:**

<https://vetmed.iastate.edu/students/curriculum/class-2023-curriculum>

- **Student area on VDPAM website**

<https://vetmed.iastate.edu/vdpam/academics/DVM-program>

- **Canvas**

**VDPAM VM4 Rotations Organization**

