

ANS 4623C
PORK PRODUCTION

Lecture: Tuesday and Thursday (11:45 - 12:35- Period 5)

Lab: Tuesday (12:50-2:45)

Locations: 156 Animal Science, Swine Unit or TBA

Three Credit Hours

Instructor

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Course description: ANS 4623C- This course will teach the principles of modern pork production including all aspects of swine production management systems (breeding systems, disease control, applied economics, housing, marketing, pork quality, and nutrition in a systems approach), relative to the U.S./Global Pork Supply. This course is a junior/senior level capstone class and will have written assignments. Students will use creativity, problem solving and critical thinking skills. Lectures will contain material relevant to the lab portion of the class.

Final Exam: 12/16/2021 @ 7:30 AM - 9:30 AM

Prerequisites: ANS 3440, 3319C and 3613L or 4604C/ or instructor's consent. Optional Text: Pork Industry Handbook- CD ROM

Student Learning Outcomes:

Understand of the scope of the swine industry in the U.S. and world.

Evaluate the different production systems in the swine industry.

Understand the breeding, reproduction, nutrition, health management and marketing of swine.

Be able to assess pork quality, analyze cash flow and profitability.

Increase awareness of the economic, social, and environmental challenges in the pork industry.

Expand awareness and accessibility of resource materials available to swine producers in the U.S.

Provide opportunity for significant exchange of ideas and fostering critical thinking.

Laboratory:

During this course you will spend hands-on time at the University swine barn. Acquire rubber boots and bring old clothes- STUDENTS ARE HIGHLY ENCOURAGED TO NOT CONTACT OTHER PIGS 72 HOURS PRIOR TO LAB FOR BIOSECURITY REASONS.

Course grading:

More information on the university wide grading policy can be accessed at:

<http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html>

Grades Based On The Following:		Letter Grades Will Be Determined as Follows:			
Two Exams (100 pts each)	200	A	90 & Above	C	70 - 74.99
Lab- (including group trial presentation @ 50 pts)	150	B+	85 -89.99	D+	65 - 69.99
Field trips/alternate assignment	100	B	80 - 84.99	D	60 - 64.99
Farm plan	300	C+	75 - 79.99	E	59.99 & Below
Sow project	100				
Comprehensive Final	150				

Laboratory attendance will be worth 7 pts each week. The field trip(s) are worth 100 pts. Students who are not able to attend field trip(s) will be given alternate assignments.

Farm Plan- This project will be graded as follows:

Genetics/Breeding Program- 15 points; Housing, Facilities & Equipment- 15 points; Health plan- 15 points

Marketing plan- 15 points; Pig Flow/Cash flow- 30 points

Final written report- 100 points

Final oral report/Final- 100 points

Total 300 points

Your project should address these core questions

How much does it take for you to live annually?

What are your production costs per pig? (feed, facilities, health)

How much will you mkt your pigs for?

How many sows/marketable pigs will it take to hit your annual cost of living minus taxes?

How else can you accrue money from this gift you have been given?

How will you finance expansion?

The final written report will be due on 11-26 and student presentations will be during lab on 12-3.

Each student will complete the project on their own. You will be asked to develop a complete production plan for a commodity or niche swine production operation. Your grandparents have left you 100 acres of Bahia grass pasture land in Gilchrist County Florida in a trust that stipulates you must use these assets for pork production for five years. The farm is relatively secluded, has a perimeter fence, a small equipment shed, a few outdoor farrowing huts, and five 3rd parity whiteline sows your Grandpa used to raise and sell a few meathogs.

In short, you must put together a management plan detailing ALL receipts and expenditures showing that you can operate at a profit by the 5th year and beyond or you will lose it all. All other capital improvements, breeding stock purchase, equipment, etc. will be 100% financed. **Each portion of the project turned in throughout the semester is to include capital costs, operating expenses and all expenses associated with that portion of the project.** You are a recent UF Animal Sciences graduate with an entrepreneurial spirit, you are single, have no children, and will not have any appreciable off-farm income for these first five years. It is up to you to develop a feasible, profitable swine operation under these guidelines. It is now time to utilize all of the knowledge you have gained in your college career, plus the realistic view to make the correct management and financial decisions. This project will be considered PROFESSIONAL. Treat this opportunity as if it was your own operation and the profit or loss of the operation was in your own hands.

Group trial presentation- A small finishing trial will be conducted. All students will be assigned to one of three groups (Growth, Efficiency & Ultrasound; Carcass data & cutting test; or early & ultimate ph, color, WBS & sensory). Groups will present their results and interpretation on 11-26 and will be worth 50 pts of lab grade.

Sow project and picture farrowing chronicle- Students will be assigned a post 100 d bred sow. Students will be responsible for enacting UF swine barn SOPs during late gestation & farrowing. A chronicle including pictures will be kept documenting parturition. Students will be responsible for 1) finding, bringing up, washing, & stalling sow in crate, 2) checking daily progress toward parturition & monitoring sow & litter performance 1 wk post-partum, 3) chronicling parturition (pictures, time interval, interventions, number born, NBA, etc.); 4) within 24 hrs recording litter birth wt, iron injections, clipping needle teeth 5) within 1 wk post-partum ear notching, docking tails, and castrating boars. Picture chronicle is due post-weaning.

Supporting Material:

Pork www.porkmag.com

National Pork Board <http://www.pork.org>

National Hog Farmer <http://nationalhogfarmer.com/>

Feedstuffs www.feedstuffs

Chicago Mercantile Exchange www.cme.com

Journal of Animal Science www.asas.org
USDA-AMS www.usda.gov
National Swine Improvement Federation www.nsif.com
Pork Information Gateway (PIG) www.porkgateway.com
National Daily Hog and Pork Summary <http://www.ams.usda.gov/mnreports/lstdhps.pdf>
Daily Livestock Report www.dailylivestockreport.com
AgWeb <http://www.agweb.com/>
National Swine Registry <http://nationalswine.com/index.php>
Stages http://nationalswine.com/pedigree_services/stages.php
American Assoc. of Swine Veterinarians <https://www.aasv.org/>

Class Schedule

DATE	TOPIC
8-20	Introductions
8-22	World, U.S. and Regional Pork Industry
Lab 8-20	Introductions- Establish groups/Production Systems- Pig Flow Scheduling- 156
8-27	Biosecurity, Herd Health/Diseases
8-29	Production Systems/ Commodity or Niche Marketing
Lab 8-27	Gilt Selection- Swine Barn
9-3	Genetics & Breeding
9-5	Genetics & Breeding
Lab 9-3	Parturition/ Litter Management- Swine Barn
9-10	Gestation Management
9-12	Gestation Management
Lab 9-10	Genetics/Breeding Program due
9-17	Reproduction Management
9-19	Reproduction Management
Lab 9-17	Reproduction lab- Computer Diet Formulation
9-24	Farrowing/Lactation Management
9-26	Farrowing/Lactation Management
Lab 9-24	Artificial Insemination lab- Swine Barn Housing, Facilities & Equipment due
10-1	Nutrition
10-3	EXAM 1
Lab 10-1	Health lab
10-8	Nutrition
10-10	Nutrition
Lab 10-8	Put pigs on treatment- Swine Barn
10-15	Commodity Marketing/Economics/Contracts-
10-17	Marketing
Lab 10-15	Prep for Field Day- Swine Barn Gestation & Reproductive Management-
10-22	Nursery Management
10-24	Nursery Management
Lab 10-22	Grow/Finish Management- Swine Barn Marketing plan due
10-29	Nutrient Management
10-31	Grow-Finish Management
Lab 10-29	- Pig Flow/Cash flow due
11-5	Grow-Finish Management
11-7	Carcass merit
Lab 11-5	Final Weights- Swine Barn
11-12	EXAM 2
11-14	Pork/Pork Quality
Lab 11-12	Carcass data and fabrication- 156/
11-19	Pork/Pork Quality
11-21	Beta-agonists and immunological castration
Lab 11-19	Meat Lab Sensory lab-156- Final farm plan due
11-26	Efficiency
11-28	NO CLASS- Thanksgiving
Lab 11-26	Reports on Class Lab Trials
12-3	Problems assignment
Lab 12-3	Student presentations on farm plan Smithfield- December 5 & 6

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Digital devices (cell phones, iPads, laptops)

Students are asked to silence their cellular phones before entering the classroom. Unless students are taking notes on their laptops, laptops should be OFF during class. If students are found to be Facebooking or texting, they will be asked to turn off their digital device.

Risk Associated with the Use of Livestock and their tissues

Working with livestock is inherently *risky*. Many of these animals are capable of injuring people, especially when they are in the *flight or fight* mode inspired by a stressful situation. The instructors will work to provide students with the ability to manage livestock with minimal stress, thus lowering the risk of injury to people and animals.

Livestock species can carry microorganisms that can cause diarrhea and flu-like symptoms in humans. These microorganisms can be shed in an animal's feces and saliva. These organisms of concern such as Salmonella, Campylobacter, and E.coli can survive on the animal's hide or surroundings, and though unlikely could be present in/on meat. These pathogens can cause significant illness, especially to someone who is immunocompromised. Students should wash their hands after handling livestock and/or raw meat.

Attendance policy:

Requirements for class attendance and make-up exams, assignments, and other work are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

The following are considered authorized (excused) absences if the indicated conditions are met:

University approved field trip or activity: These must be cleared at least one week in advance of the major examination. If not cleared in an appropriate fashion, a grade of zero will be assigned for the missed examination.

Death or serious illness in the family: A letter of explanation from the physician or minister who attended the patient or was in charge of the funeral services, respectively, must verify this. This letter must be within 14 days following the missed examination or the grade of zero will be assigned.

Personal illness that is too severe or contagious for the student to attend class: A letter of explanation from a physician on official letterhead must verify this. This letter must be within 14 days following the missed examination or the grade of zero will be assigned.

Legal procedure, administrative procedure, or military duty: The instructor must be notified at least one week in advance of the major examination and have a verification letter on official letterhead. If not cleared in an appropriate fashion, a grade of zero will be assigned for the missed examination.

Religious observance: The instructor must be notified at least one week in advance of the major examination. If not cleared in an appropriate fashion, a grade of zero will be assigned for the missed examination.

Mandatory admission interview for professional school which cannot be rescheduled:

The instructor must be notified at least one week in advance of the major examination and have a notification from the appropriate individual on official letterhead. If not cleared in an appropriate fashion, a grade of zero will be assigned for the missed examination.

General Information:

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/> . Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluer.com/ufl/> .

Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

Students are allowed to record video or audio of class lectures. However, the purposes

for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

Health and Wellness

U Matter, We Care: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit U Matter, We Care website to refer or report a concern and a team member will reach out to the student in distress.

Counseling and Wellness Center: Visit the Counseling and Wellness Center website or call 352-392-1575 for information on crisis services as well as non-crisis services.

Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need, or visit the Student Health Care Center website.

University Police Department: Visit UF Police Department website or call 352-392-1111 (or 9-1-1 for emergencies).

UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; Visit the UF Health Emergency Room and Trauma Center website.

GatorWell Health Promotion Services: For prevention services focused on optimal wellbeing, including Wellness Coaching for Academic Success, visit the GatorWell website or call 352-273-4450.

Academic Resources

E-learning technical support: Contact the UF Computing Help Desk at 352-392-4357 or via e-mail at helpdesk@ufl.edu.

Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.

Library Support: Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center: Broward Hall, 352-392-2010 or to make an appointment 352-392-6420. General study skills and tutoring.

Writing Studio: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.

Student Complaints On-Campus: Visit the Student Honor Code and Student Conduct Code webpage for more information.

On-Line Students Complaints: View the Distance Learning Student Complaint Process Policy on Course Syllabi 4