

ANS 4623C
PORK PRODUCTION

Lecture: Tuesday and Thursday (8:30-9:20 am- Period 2)

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.

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
2 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	50				
2 Problems assignments @ 25 pts each	50				
Comprehensive Final	150				

Laboratory attendance will be worth 7 pts each week. Exercises from the two out-of-class field trips will be worth 50 pts each. Students who are not able to attend field trips 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 11-27 and student presentations will be during lab on 12-4.

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 careers, 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 11-27 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.

Problems assignments- The audience will vary and will be determined at time of assignment. These assignments will be based on real world challenges in pork production and are intended to encourage students to read relevant materials (some provided in advance) and encourage critical thinking or problem solving relevant to the topic assigned.

Other Key Dates-

UF Swine Clinic & Pig Sale- October 19

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/>

Authorized absences: The only absences that will be authorized are:

ABSENCE FOR A 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.

ABSENCE FOR A DEATH OR SERIOUS ILLNESS IN THE IMMEDIATE 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.

ABSENCES RESULTING FROM 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.

ABSENCE FOR A 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.

ABSENCE FOR A 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.

ABSENCE FOR A 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.

For more information on attendance <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Class evaluation: Students are expected to provide feedback for this class near the semester's end @ <https://evaluations.ufl.edu/evals/>

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 & Pig Sale- 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

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.

CALS Syllabus Policy

Approved by CALS Curriculum Committee September 13, 2013

College of Agricultural and Life Sciences requirements for a course syllabus closely mirror the University of Florida Policy on Course Syllabi (see http://www.aa.ufl.edu/Data/Sites/18/media/policies/syllabi_policy.pdf). However, there are some elements that are suggested by UF but required by CALS and the CALS Curriculum Committee has reviewed and approved sample syllabus statements for several required elements.

This document is intended to complement the UF Policy, clarify additional CALS requirements and provide suggested language that may be used. The language provided covers the minimum UF and CALS requirements; more details can be added at the instructor's discretion.

All CALS course syllabi must contain:

1. Course prefix and number, course title, number of credits, meeting days and times, prerequisites.
2. Instructor's name and contact information including office location, telephone number, email address and office hours; include similar TA contact information if applicable.
3. Course description. This should match the description in the catalog.
4. Course learning objectives. Course objectives should indicate what the student will be able to do when they have completed the course. See the guidance document at <http://cals.ufl.edu/faculty-staff/docs/cc/forms/learningObjectives.pdf>.
5. A weekly course schedule of topics and assignments.
6. Critical dates. Include dates for exams, due dates for assignments, etc.
7. A list of all required and recommended textbooks. Graduate courses should include a reading list of current literature along with classic references or texts where applicable.
8. Methods by which students will be evaluated and their grade determined. A grading scale may be done by total points or percentage of total points, but should clearly show the required performance for each letter grade. Plus (+) and minus (-) grades may be used but are not required. There is no standard grading scale (e.g., level of performance for an A grade) in CALS or at UF.
9. Information on current UF grading policies for assigning grade points. A standard statement is provided below.

Grades and Grade Points

For information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

10. A statement related to class attendance and options for making up exams and other work. A standard statement is provided below.

Attendance and Make-Up Work

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>.

11. A statement informing students of the online course evaluation process. Instructors may want to identify a class period when students will be given time to complete the course evaluation in class on their laptop, tablet or smartphone. A standard statement is provided below.

Online Course Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. These evaluations are conducted online at <https://evaluations.ufl.edu>. Evaluations are typically open for students to complete during the last two or three weeks of the semester; students will be notified of the specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results>.

12. A statement regarding academic honesty. A standard statement is provided below.

Academic Honesty

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: *"We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity."* You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: *"On my honor, I have neither given nor received unauthorized aid in doing this assignment."*

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code>.

13. A statement regarding software use. A standard statement is provided below.

Software Use:

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

14. A statement related to accommodations for students with disabilities. A standard statement is provided below.

Services for Students with Disabilities

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation

0001 Reid Hall, 352-392-8565, www.dso.ufl.edu/drc/

15. A statement related to resources for students. A standard statement is provided below.

Campus Helping Resources

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- *University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575,*
www.counseling.ufl.edu/cwc/

Counseling Services
Groups and Workshops
Outreach and Consultation
Self-Help Library
Wellness Coaching

- *Career Resource Center*, First Floor JWRU, 392-1601, www.crc.ufl.edu/

16. Student Complaints:

Residential Course: https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf

Online Course: <http://www.distance.ufl.edu/student-complaint-process>

Additional information

Instructors may choose to clarify in their syllabus their teaching philosophy, expectations for classroom behavior, utilization of e-learning, and other information that will help students succeed in the course.

The following statement is recommended for all distance-delivered courses, but is not required.

Each online distance learning program has a process for, and will make every attempt to resolve, student complaints within its academic and administrative departments at the program level. See <http://distance.ufl.edu/student-complaints> for more details.