

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

Chad Carr, PhD

Office: 224B Animal Sci. Bldg. 459

Office Phone: 352-392-2454

Cell Phone: 352-213-4911

Teaching assistant: Michael Gary

Email: michael.gary@ufl.edu

Cell Phone: 863-513-7047

Office Hours: By appointment

E-mail: chadcarr@ufl.edu

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

The final written report will be due on 11-29 and student presentations will be during lab on 12-6.

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 ractopamine 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 11-29 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 22

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
8-22	Introductions
8-24	World, U.S. and Regional Pork Industry
Lab 8-22	Introductions- Establish groups/Production Systems- Pig Flow Scheduling- 156
8-29	Biosecurity, Herd Health/Diseases
8-31	Production Systems/ Commodity or Niche Marketing
Lab 8-29	Gilt Selection- Swine Barn
9-5	Genetics & Breeding
9-7	Genetics & Breeding
Lab 9-5	Parturition/ Litter Management- Swine Barn
9-12	Gestation Management
9-14	Gestation Management
Lab 9-12	Genetics/Breeding Program due
9-19	Reproduction Management
9-21	Reproduction Management
Lab 9-19	Computer Diet Formulation-
9-26	Farrowing/Lactation Management
9-28	Farrowing/Lactation Management
Lab 9-26	Gestation & Reproductive Management- Swine Barn Housing, Facilities & Equipment due
10-3	Nutrition
10-5	EXAM 1
Lab 10-3	Niche Marketing- Marketing youth prospect pigs- Swine Barn
10-10	Nutrition
10-12	Guest lecturer- Brian Arnold
Lab 10-10	Diet formulation/start RAC trial- Swine Barn Health plan due
10-17	Commodity Marketing/Economics/Contracts-
10-19	Marketing
Lab 10-17	Prep for Field Day & Pig Sale- Swine Barn
10-24	Nursery Management
10-26	Nursery Management
Lab 10-24	Grow/Finish Management-2 wk wts- Swine Barn Marketing plan due
10-31	Nutrient Management
11-2	Grow-Finish Management
Lab 10-31	PQA
11-7	Grow-Finish Management
11-9	Pork/Pork Quality
Lab 11-7	Growth data- Swine Barn - Pig Flow/Cash flow due
11-14	EXAM 2
11-16	Pork/Pork Quality
Lab 11-14	Carcass data- 156/Meat Lab
11-21	Beta-agonists and immunological castration
11-23	NO CLASS- Thanksgiving
Lab 11-21	Sensory lab- 156/Meat Lab
11-28	Problems assignment
11-30	Problems assignment
Lab 11-28	Reports on Class Lab Trials- 156 Final farm plan due
12-5	Student presentations on farm plan
Lab 12-5	Student presentations on farm plan
	Oct 6- Homecoming Friday- Field Trip
	Smithfield- December 7 & 8

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.

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

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.

Academic Honesty

In 1995 the UF student body enacted a new honor code and voluntarily committed itself to the highest standards of honesty and integrity. When students enroll at the university, they commit themselves to the standard drafted and enacted by students. In adopting this honor code, the students of the University of Florida recognize that academic honesty and integrity are fundamental values of the university community. Students who enroll at the university commit to holding themselves and their peers to the high standard of honor required by the honor code. Any individual who becomes aware of a violation of the honor code is bound by honor to take corrective action. The quality of a University of Florida education is dependent upon community acceptance and enforcement of the honor code.

The Honor Code: We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.

On all work submitted for credit by students at the university, the following pledge is either required or implied: **“On my honor, I have neither given nor received unauthorized aid in doing this assignment.”**

The university requires all members of its community to be honest in all endeavors. A fundamental principle is that the whole process of learning and pursuit of knowledge is diminished by cheating, plagiarism and other acts of academic dishonesty. In addition, every dishonest act in the academic environment affects other students adversely, from the skewing of the grading curve to giving unfair advantage for honors or for professional or graduate school admission. Therefore, the university will take severe action against dishonest students. Similarly, measures will be taken against faculty, staff and administrators who practice dishonest or demeaning behavior.

Students should report any condition that facilitates dishonesty to the instructor, department chair, college dean or Student Honor Court.

(Source: 2014-2015 Undergraduate Catalog)

It is assumed all work will be completed independently unless the assignment is defined as a group project, in writing by the instructor. This policy will be vigorously upheld at all times in this course.

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. Both the Counseling Center and Student Mental Health Services provide 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. The Counseling Center is located at 301 Peabody Hall (next to Criser Hall). Student Mental Health Services is located on the second floor of the Student Health Care Center in the Infirmary.

University Counseling Center, 301 Peabody Hall, 392-1575, www.counseling.ufl.edu/cwc/

Career Resource Center, CR-100 JWRU, 392-1602, www.crc.ufl.edu/

Student Mental Health Services, Rm. 245 Student Health Care Center, 392-1171, www.counseling.ufl.edu/cwc/

Alcohol and Substance Abuse Program (ASAP)

Center for Sexual Assault / Abuse Recovery & Education (CARE)

Eating Disorders Program

Employee Assistance Program

Suicide Prevention Program