

Course Title**ANS 3043 Growth & Development of Farm Animals****Course Instructors****Stephanie Wohlgemuth, Ph.D.**Office: Animal Science - Bldg 459, Room 202CPhone: (352) 392-7563Email: steffiw@ufl.edu**John Driver, Ph.D.**Office: Animal Science - Bldg 499, Room 204EPhone: (352) 392-1981 x224Email: jdriver@ufl.edu**Office hours**

We have an open-door policy, but to make sure we are there and have time for you, please schedule an appointment to meet with one of us. We will respond to emails within 48 hours.

Course Description and Objectives

ANS 3043 is a three-credit undergraduate level course offering insights into the physiological, genetic, and nutritional basis of animal growth, development, and body composition with application to livestock production.

At the end of the course, the student will be able to:

- ✓ Understand the core concepts of animal growth;
- ✓ Describe the dynamic forces that influence early embryonic, prenatal, and postnatal growth and development of domesticated livestock and other mammalian species;
- ✓ Discuss the fundamentals of cell biology, and connective tissue, muscle, bone and fat anatomy, formation and function;
- ✓ Place tissue growth in the context of endocrine, paracrine and autocrine modifiers;
- ✓ Summarize factors that control and influence animal growth and development including gender, genotype, nutrition, environment, endocrine, growth promotants, and genetic engineering.

Time and LocationMWF 8:30 – 9:20 am (2nd period)

Location: ANS 156

**Requirements**

The student should have completed undergraduate coursework in Biology (of advantage is to have taken BSC 2010 AND 2011), Reproduction, Chemistry, and Introduction to Animal Science.

Supporting texts

There is no assigned textbook. Some reading assignments and suggestions will be provided and will come from research and popular press articles, online resources, and book chapters. However, we recommend the following textbooks, which the student may wish to consult:

- ✓ *Principles of Animal Growth and Development*, Gerrard and Grant; ISBN13: 978-0-7575-2986-3; Kendall Hunt Publishing, Dubuque, Iowa 52002.
- ✓ *Growth of Farm Animals*, Lawrence, Fowler and Novakofski; 3rd ed. (2012); ISBN-13: 978-1-84593-558-0 (paperback); CABI Cambridge, MA;
- ✓ College level *Biology* textbook
- ✓ *Physiology* textbook, for example: *Color Atlas of Physiology*, Silbernagl and Despopoulos; ISBN-13: 978-3135450063; Thieme Publishing, 6th edition 2008

Course Website on Canvas

The Canvas website will contain the syllabus and resources such as assigned and recommended readings. Lesson PowerPoint slides will also be provided on the Canvas course site. Furthermore, ALL email communications should happen through the course website. Here is a link to the [Canvas Student Quickstart Guide](#). In case you need an introduction or help. Additionally, the e-learning site and the Canvas site itself provide links to help options.

Grades and Grading Policy

Grades are based on 3, 100 point exams given over the course of the semester, and 100 points worth of homework assignments and in-class quizzes.

Grades are assigned as follows:

- 90-100 A*
- 85-89 B+
- 80-84 B
- 75-79 C+
- 70-74 C
- 65-69 D+
- 60-64 D
- ≤ 59 E

*: please note that no minus grades will be used.

For information on current UF policies for assigning grade points:

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

A majority of the exam and quiz material will come from the lecture notes (90%) with the remainder (10%) coming from assigned reading material. An exam may not be missed without prior consent of the instructor. All requests to either miss or to be excused from an exam must be submitted in writing and signed by the student regardless of the reason. Any exam missed for reasons other than those listed below will not be excused and a grade of zero will be recorded. Excused absences include:

1. Absence for a university-approved field trip or activity (must be cleared one week in advance).
2. Absence for a death or serious illness in the immediate family (verification by obituary).
3. Absence resulting from personal illness (verification consisting of a letter of explanation from hospital or doctor on official letterhead).

Request to re-grade an exam must be made within one week from the date the grades were assigned. Grade challenges must be submitted in writing, and returned to the instructor.

No make-up exams without a valid medical excuse (doctor or infirmary) or prior notification of a University sponsored event.

If for any reason you are having problems understanding the course material and/or are having other academic, university, or personal problems that are affecting your performance in class, please make an appointment with us as early in the semester as possible so the problems can be addressed.

Exams: “see important dates”

Attendance Policy

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

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

Since you are all mature, responsible, and ambitious young adults, attendance is not required nor will it be recorded. However, it is recommended that you not miss class as your final grade will be positively correlated with attendance. If attendance becomes an issue we reserve the right to give announced or unannounced quizzes for points throughout the semester.

Class Expectations

The foundation of this class will be based on developing mutual respect between students and instructors. We will work as diligently as possible to insure all individuals are treated fairly, all opinions and personalities are respected, and everyone has an equal opportunity to succeed in this class. We will put forth all our energy and enthusiasm into making this class not only academically challenging but also a rewarding and enjoyable experience. In return, we expect a similar commitment from you towards us, and equally important, towards your fellow students. Please respect your fellow student’s opinions, their quest for knowledge, and their desire to succeed in this class.

Mutual respect includes not using cell phones (for anything, unless necessary for class and announced - The instructors will use their cell phones also only in emergencies), and to take a break from social media for the duration of the class.

This class can be challenging for some of you, and may require some extra effort on your side – well, that is true for every class, isn’t it? If you have not taken your Biology classes (for ex., BSC 2010 **and** 2011) you may have to catch up on some physiology and cell biology alongside the provided lecture material. Be prepared for that. This extra effort will be advantageous for a better understanding of the physiology of growth and development of an organism.



Course Topics

Week* ¹	Topic
1	Introduction to the course; General aspects of growth
2	Cells and principles of cell growth
3-4	Embryo development
5-8	Tissues: basic structure and growth (cell types, epithelial, muscle, connective, bone, and adipose tissue)
9-10	Hormonal influences on growth
11-12	Whole animal development
13-14	Genetic factors affecting growth
15	Environmental factors affecting growth
Special topics* ²	<i>For example: Muscle to Meat; Poultry Development; New Technologies in Embryo Growth; Development of the Mammary Gland</i>

- ! *¹: Please note that the syllabus is an evolving animal. Contents, topics and timeline listed in the syllabus may therefore be subject to slight modifications, in part tailored to you.
- ! *²: Contents and timing of special topics lectures will depend on guest speaker availability.

Important dates

First class meets on Monday, August 24th. Last class is on Wednesday, December 9th. Reading days are December 10th and 11th. **The third and final exam for this class is on Thursday, December 17th, during finals week. The final exam will not be cumulative.**

No classes on:

Sept. 7th (Labor Day)
 Nov. 6th (Homecoming)
 Nov. 25th – 27th (Thanksgiving ☺)

Exams (all during regular class hours):

Exam 1: Sept. 25th
Exam 2: Nov. 4th
Exam 3: Dec. 17th (see above)

And remember, Friday is quiz day (unless announced otherwise)!



General information

Services for Students with Disabilities

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.

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/

Online course evaluation process

Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

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

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:

<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>

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*
 - *Training Programs*
 - *Community Provider Database*
- *Career Resource Center*, First Floor JWR392-1602, www.crc.ufl.edu/