

## Course Title

ANS 6775 Essentials of Livestock Immunology

## Course Instructor

**John Driver, Ph.D.**

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## Office hours

By appointment. Please call or email to schedule an appointment.

## Course Description

ANS 6775 introduces basic immunological concepts and describes how they relate to immunity for livestock and other species.

## Time and Location

MW 3:00 – 3:50, 4:05 – 4:55, F 3:00 – 3:50

This is an online class and meets synchronously. Please check Canvas for Zoom link.

This class is a one-credit course and meets for a period of three weeks: from March 15<sup>th</sup> to April 2<sup>nd</sup>, 2021.

## Requirements

None

## Supporting texts

There is no required textbook. However, for extra insight and understanding please refer to the textbooks:

Janeway's Immunobiology (Garland Publishing, ISBN13: 978-0815342434)

Abbas et al. Cellular and Molecular Immunology (Elsevier, ISBN 978-1-4377-1528-6)

## Course Objectives

1. Understand the different cell types that make up the immune system of domestic livestock species.
2. Gain an appreciation for the distinct ways innate and adaptive immune cells have evolved to protect against the wide variety of pathogens that threaten animal health
3. Learn how microbes are captured, processed and presented by the immune system to generate short and long term protection from infection
4. Learn how genetic diversity within the immune system enables animals to adapt and thrive in a world of countless microbes.

## Course Website on CANVAS

This Canvas website will contain the syllabus and resources such as assigned and recommended readings.

Lesson *PowerPoint* slides will also be provided on the course website. Furthermore, email communications should happen through the course website.

## Grades and Make-Up Policy

Final grades are based upon three 50-point tests to be given at the end of each week of class. Each test will make up 33% of the final grade. Grades are assigned as follows:

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

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



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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 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. Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at: <http://gradcatalog.ufl.edu/content.php?catoid=5&navoid=1054>

### Course Topics\*

| Week | Day | Topic  |
|------|-----|--|
| 1    | M   | General properties of the Immune System                        |
|      |     | Cells and tissues of the Immune System                         |
|      | W   | Cells and tissues of the Immune System                         |
|      |     | Antigens and Antibodies  |
|      | F   | Antibody formation and diversity                               |
|      |     | <b>Test 1</b>  |
| 2    | M   | Antibody formation and diversity                               |
|      |     | The Major Histocompatibility Complex                           |
|      | W   | The Major Histocompatibility Complex                           |
|      |     | The Major Histocompatibility Complex                           |
|      | F   | Antigen processing and antigen presentation to T lymphocytes   |
|      |     | <b>Test 2</b>  |
| 3    | M   | Antigen receptors and accessory molecules of T lymphocytes     |
|      |     | Antigen receptors and accessory molecules of T lymphocytes     |
|      | W   | Lymphocyte maturation and expression of antigen receptor genes |
|      |     | Lymphocyte maturation and expression of antigen receptor genes |
|      | F   | <b>Test 3</b>  |

## General information

### 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, 392-8565, [www.dso.ufl.edu/drc/](http://www.dso.ufl.edu/drc/)

### 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." 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/honorcodes/honorcode.php>

### 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.

### Attendance Policy

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, I reserve the right to give announced or unannounced quizzes for points throughout the semester.

### 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. [www.counseling.ufl.edu/cwc/](http://www.counseling.ufl.edu/cwc/)

*University Counseling & Wellness Center, 3190  
Radio Road, 352-392-1575,*

- *Counseling Services*
- *Groups and Workshops*
- *Outreach and Consultation*
- *Self-Help Library*
- *Training Programs*
- *Community Provider Database*

*Career Resource Center, First Floor JWRU, 392-1602,  
[www.crc.ufl.edu](http://www.crc.ufl.edu)*