

# **ANS 6939 Artificial Intelligence in Animal Sciences Journal Club**

1 credit

**Spring 2024**

## **Instructor**

Dr. Haipeng Yu

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Office Hours: By appointment

## **Time and Location**

- Dairy Science Building (499), Room 102
- Monday 10:40 am - 11:30 am

## **Course Description and Objective**

This journal club provides an advanced platform for discussing recently published research that focuses on the application of Artificial Intelligence (AI) in various domains of animal sciences (see example topics below). Students will choose and present journal articles, followed by discussions about the objectives, methods, results, and implications of each study. The instructor will also join in these discussions. Through this process, students will gain insights into the forefront of AI applications in animal science research and develop the ability to critically evaluate peer-reviewed scientific literature.

Examples of research topics, but not limited to, that will be discussed in this journal club:

- Advancing animal reproduction diagnostics using deep learning-based image analysis
- AI-driven animal disease detection and prevention
- Application of AI algorithms in animal breeding and genetics
- Multi-omics integration using AI algorithms for animal breeding and genetics
- Optimizing livestock production and management with AI and animal digital data integration
- Animal behavior identification and tracking with AI-enhanced computer vision
- Precision animal feeding using AI-based automated feeding systems

### **Grades and Grading Policy**

S/U, grading based on attendance, participation, and article presentation. Each student is expected to attend all meetings, with exceptions approved by the course instructor, present a journal article, and participate in class discussion. For information on current UF policies for assigning grade points:

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

### **Attendance and Make-Up Work**

Students on campus are expected to attend the lectures in person unless a justifiable issue occurs (illness, travel, etc.). Please discuss with the instructor ahead of time if you need to be absent from a lecture. 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>.

### **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.

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

### **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>.

### **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, <https://disability.ufl.edu/>

### **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](http://www.counseling.ufl.edu). Includes counseling services, groups and workshops, outreach and consultation, self-help library, and wellness coaching.
- U Matter, We Care: If you or someone you know is in distress, please contact [umatter@ufl.edu](mailto: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.

- 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](#).

### **Diversity Statement**

The Department of Animal Sciences believes an inclusive, equity-minded environment includes access to higher- and continued education. We develop flexible, efficient, and accessible learning environments that welcome and support diversity. Diversity can include disability, age, socioeconomic status, ethnicity, race, nationality, religion, gender identity, sexuality, and culture. We expect all our community members (students, staff, and faculty) to act respectfully towards others (online and in person) and to utilize differences of opinion as learning opportunities. We also want you to feel comfortable asking for reasonable accommodations so that all students can participate in this course equitably. Please consult the Disability Resource Center <https://disability.ufl.edu/> for further questions.