ANS4079C is a lecture with laboratory course focusing on the anatomical and biological features that enable horses to be exceptional athletes.

This class will cover three areas: [1] conformation & selection of the equine athlete; [2] anatomy and physiology of key body systems and their response to training; and [3] conditioning programs to achieve fitness.

Course fee = $167.57

prerequisites

Before taking this course, you must have:
✓ ANS 3043 Growth and Development
✓ Or, APK 2100C Human Anatomy

learning objectives

1) Appraise the horse’s conformation and predict how it will affect biomechanics of movement and the horse’s suitability for different sports.

2) Identify key anatomical structures and describe the relationship between structure and function.

3) Explain the integration of the equine musculo-skeletal, cardio-respiratory, and thermoregulatory systems during exercise and how these systems adapt to training.

4) Evaluate the horse’s physical fitness and design sport-specific conditioning programs to optimize performance.

5) Communicate with peers and industry professionals using correct anatomical, physiological, & veterinary terminology.

what’s in this syllabus?

- class meeting time  p. 1
- course description  p. 1
- instructor & TA contacts  p. 1
- course format  p. 2
- course requirements  p. 2
- course assessments  p. 3
- course resources  p. 3
- grading & other course policies  p. 4
- UF policies & resources  p. 5
- topics & important dates  p. 6

instructor

Dr. Lori K. Warren
office: ANS Suite 210, Office 210G
phone: (352) 392-1957
email: LKWa ren@ufl.edu

teaching assistants

Lab ‘A’ – Delaney Binder
email: delaney.binder@ufl.edu

Lab ‘B’ – Peyton Svagerko
email: psvagerko@ufl.edu

office hours

- By appointment. Contact your lab TA or Dr. Warren using email or CANVAS messaging.
- Meetings can take place in-person or via Zoom conference.
course structure & format

This course consists of both lecture and lab sessions, all of which require in-person attendance. When possible, alternate accommodations will be provided for students with a valid absence (see the Attendance, Makeup and Late Work policy on page 4 of this syllabus).

The schedule of lectures and lab sessions can be found in several locations:

1) Syllabus: Course Schedule (page 6)
2) CANVAS > Schedule 2024
3) CANVAS > Modules (organized by topic)
4) Weekly summary of activities on the CANVAS homepage (note homepage is not viewable on your mobile phone).

lectures

Lectures will be held on Mondays and Wednesdays from 11:45am – 12:35pm in Room 151 of Animal Sciences.

Lectures will consist of traditional content delivery along with some group discussions and activities. In some cases, you will be asked to watch videos or read an article BEFORE a class session.

A Zoom option for lectures will NOT be available, nor will lectures be recorded by the instructor for later viewing. So, it is very important to attend each class. If you are absent without a valid excuse, it is your responsibility to seek notes from a classmate.

course requirements

engage in learning – learning about the horse’s body (anatomy) and how it works (physiology) can be fascinating while also providing knowledge essential for most careers in the industry. This course will involve reading, writing, group work, creativity, and outside effort. The study of anatomy requires memorization; you will need to study lecture and supplemental materials outside of class and put in consistent effort throughout the semester.

To get the most out of this course, attend lectures & labs, engage in discussions with your peers, ask questions, explore materials provided on CANVAS, take advantage of opportunities offered, get dirty, and get help before getting too far behind!

labs

Labs will be held on Wednesday afternoons. There are 2 lab sections:

- **LAB A** (#10414) – Wed 1:55-3:50pm
  *Will start promptly at 2:00pm*
- **LAB B** (#24864) – Wed 4:05-6:00pm
  *Will start promptly at 4:10pm*

You must attend the lab section you are enrolled in, unless other arrangements have been made with Dr. Warren ahead of time. Plan on each lab lasting the entire 1-hr 50-min session scheduled.

Most labs will be held at the Horse Teaching Unit (Google Maps link). Lab start time will be delayed by 5 minutes to allow additional time to get to the HTU.

Many labs involve work with horses, which can exhibit unpredictable behavior that can cause serious bodily harm. Pay attention. Seek guidance if you are uncomfortable or unsure when working with horses.

Dress appropriately. Open-toe shoes are NOT allowed. Boots are preferred, but athletic shoes can suffice. Labs may be messy (eg, tissue fluids, blood, paint, horse slobber); avoid wearing clothes or exposing a lot of flesh that you don’t want damaged.

Topics explored in lab will parallel those covered in lecture. Each lab will have a graded worksheet and some will require you to complete an activity BEFORE coming to lab (see page 3 for more detail).

computer or tablet – all UF students are required to have a working computer (laptop or tablet). You have the option of bringing your device to lecture to take notes and to lab to complete worksheets. A computer and a reliable internet signal (to avoid disruptions in connectivity) is also required to complete weekly online quizzes.

document scanner – all projects and lab worksheets must be submitted electronically in CANVAS. If you do not have a tablet with stylus or a printer-scanner machine, you can use a document scanning app (eg, CamScanner) to convert hand-written homework for electronic submission. See links in CANVAS for video tutorials on document scanning and uploading.

*Learning is not a spectator sport*

class etiquette...and safety

- Avoid electronic distractions. Silence your phone during class. Use your laptop or tablet to take notes or complete lab worksheets, not to check social media or surf the ‘Net.
- Be respectful of other students’ background, knowledge, and opinions. If you have more horse experience than your fellow students, be a helper not a hater.
- Please arrive to class on time as a courtesy to me and others.
- Dress appropriately for all labs
- Horses can exhibit unpredictable behavior that can cause serious bodily harm. Pay attention when working with horses and seek guidance if you are unsure.
- Unauthorized recording and sharing of recorded materials used in this class is prohibited. Refer to the University’s policy on recording on page 5 of this syllabus.
Below are some books that are suggested as reference material for this course:

- **The Horse Conformation Handbook** by H. Smith-Thomas  

- **The Athletic Horse, 2nd Ed.** by D.R. Hodgson, C.M. McGowan, K.H. McKeever (editors)  
  ISBN: 978-0-7216-20075

- **Horse Gaits, Balance & Movement** by S.E. Harris  
  ISBN: 0-7645-8788-9

- **The Horse (magazine) www.thehorse.com**  
  A good source of horse health information. You can access articles for free after creating an account.

### course assessments

Your grade for this course will be based on points earned on exams, homework projects, lab activities and weekly quizzes.

- **3 exams** – 100 pts each. Each exam will cover one-third of the total course material. Format will consist of true/false, multiple choice, matching, short answer and essay questions. Exams will be closed book and will take place in-person during lecture meeting times and during finals week.

- **2 projects** – 50 pts each. A summary is provided here; see CANVAS for details

#### Relating Form to Function [DUE Feb 12]

To reinforce the concept “form follows function,” you will develop a digital media piece (eg. video, podcast, infographic…) showcasing your favorite equine athlete and what made them excel at their sport (breed, conformation, attitude, athleticism).

#### Training Equine Athletes [DUE Apr 17]

Select and attend two different equine competitive events. Prepare a written report evaluating the athletic demands and how the horse should be prepared for each type of competition. A calendar of potential events will be listed on CANVAS.

### lab activities – 10 pts each.

Labs will consist of live animal evaluation, dissection and study of harvested tissues, experiments, and other activities. Each lab is designed to supplement and enhance your understanding of lecture material. **All labs will have graded worksheets.** A paper copy of each lab worksheet will be provided to you; alternatively you can bring your tablet to work on the worksheet electronically. Keep in mind, some labs are wet/messy and it is not always easy to work with electronics around horses! Worksheets can be found on CANVAS within the specific topic module or under the Assignments link. **All worksheets must be submitted through CANVAS for grading.** You must scan your paper version and upload as a PDF file (eg, using a document scanning app like CamScanner). Most lab worksheets will be completed by the end of each lab session. See page 2 of this syllabus for additional information on lab structure and requirements.

### weekly quizzes – 5 pts each.

Each week you will complete a 10-min, open-note quiz online in CANVAS. Once started, you have 5 min to complete the quiz.

Your grade for this course will be based on points earned on exams, homework projects, lab activities and weekly quizzes.

- **Each exam** will cover one-third of the total course material. Format will consist of true/false, multiple choice, matching, short answer and essay questions. Exams will be closed book and will take place in-person during lecture meeting times and during finals week.

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- **A summary is provided here; see CANVAS for details

There is no required textbook. Instead, I have curated some articles (both research and trade journals), videos and web links to expand on the topics covered in class. In some cases, I will ask you to review these materials prior to lecture or lab; in other cases they will serve as supplementary material. I have also listed some suggested textbooks here, which you may find useful for assignments, or if you need additional background information, or simply want to learn more about any of the topics covered during the semester. I will also post lecture notes, anatomical diagrams, and study guides that can be handy study aids.
If you are feeling ill, limit your contact with others and contact your primary care physician, or the UF Student Health Care Center at 352-392-1161.

COVID-19 testing is available through the UF Student Health Care Center.

Notify Dr. Warren of your absence as soon as you can. In most cases, a make-up assignment or exam can be scheduled. Refer to the Attendance and Makeup Work policies on this page.

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If you feel sick, please stay home.

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extra credit

Train to compete in the 25-furlong Derby!!

What does the horse go through when training for competition? Experience it yourself!

Train to run 25 furlongs (5K or 3.1 miles) this semester and earn 20 points extra credit applied to your course grade!

Training programs such as Couch-to-5K® can prep you for a 5K race in 9 weeks!

To earn the extra credit, you must:

1) sign the commitment & release form by February 21

2) keep a training journal that documents starting & ending fitness assessments and your daily training routine (you will turn this in)

3) complete the 25-Furlong Derby on April 13 in 34 minutes or less or provide proof of completion of another sanctioned race approved by Dr. Warren in the same time limit.

For additional information and resources, go to CANVAS > Assignments.

Does a health issue prevent you from running? Discuss swimming and biking alternatives with Dr. Warren.
academic honesty – UF students are bound by the Honor Pledge which states: “We the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity by abiding by the Honor Code.” 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...” The Honor Code specifies a number of behaviors that are in violation of this code and possible sanctions (https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/).

It is assumed that you will complete all work independently unless the instructor provides explicit permission for you to collaborate on course assignments, quizzes, or exams. Furthermore, you are obligated to report any 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.

services for students with disabilities – Students with disabilities who experience learning barriers & would like to request academic accommodations should connect with the Disability Resource Center. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Disability Resource Center • 352-392-8565 • https://disability.ufl.edu/

online course evaluation – Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, you are expected to provide feedback on the quality of instruction in this course using a standard set of university & college criteria. Guidance on how to give feedback in a professional & respectful manner is available at https://gatorevals.aa.ufl.edu/students/. You will be notified when the evaluation period opens and can complete your evaluations using the link in emails you receive from GatorEvals, or in CANVAS (click on GatorEvals in the course menu), or at https://uf.bluerca.com/ufl/. Summary results of evaluations are available at https://gatorevals.aa.ufl.edu/public-results.

in-class recording – Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Students may not publish recorded lectures without the written consent of the instructor. A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by UF, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code.

UF policies

UF resources

*also see CANVAS > Campus Resources

health and wellness

- U Matter, We Care • if you or a friend is in distress, call (352) 392-1575 or email umatter@ufl.edu • http://www.umatter.ufl.edu/
- counselling & wellness center • https://counseling.ufl.edu/ • (352) 392-1575
- student health care center • (352) 392-1161 • https://shcc.ufl.edu/
- GatorWell health promotion • optimal well-being, academic coaching • (352) 273-4450 • gatorwell.ufsa.ufl.edu
- campus police department • 392-1111 • dial 9-1-1 for emergencies

academic resources

- e-learning technical support • (352) 392-4357 • helpdesk@ufl.edu • https://helpdesk.ufl.edu/
- career connections center • Reitz Union • https://career.ufl.edu/ • (352) 392-1601 • career guidance
- library support • receive assistance with using libraries or finding resources • https://uflib.ufl.edu/find/ask/
- teaching center • help with general study skills and tutoring services • https://teachingcenter.ufl.edu/
- writing studio • help brainstorming, formatting, & writing papers • (352) 846-1138 • writing.ufl.edu/writing-studio
- student complaints • to file a complaint, click here to visit the Student Honor Code and Student Conduct Code website for more information.

In 1938, Blackie completed an open-water swim across the San Francisco Bay (spanned by the Golden Gate bridge) as part of bet his owner made with a racetrack owner that claimed horses couldn’t swim. The gelding’s time was 23 minutes, beating an Olympic human swimmer by over an hour.
### Course Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture</th>
<th>Lab [+Location]</th>
</tr>
</thead>
<tbody>
<tr>
<td>M – Jan 8</td>
<td>Course intro / Amazing Athletes</td>
<td></td>
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<tr>
<td>W – Jan 10</td>
<td>Bone – Skeletal Anatomy</td>
<td><em>No lab this week</em></td>
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<tr>
<td>M – Jan 15</td>
<td>MLK Holiday – No Class</td>
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<tr>
<td>W – Jan 17</td>
<td>Conformation – Balance &amp; Symmetry</td>
<td>Bone Anatomy [CVM]</td>
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<tr>
<td>M – Jan 22</td>
<td>Conformation – Proportions &amp; Angles</td>
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<tr>
<td>W – Jan 24</td>
<td>Conformation – Limb Alignment</td>
<td>Balance &amp; Angles [HTU]</td>
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<tr>
<td>M – Jan 29</td>
<td>Gaits / Quality of Movement</td>
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<tr>
<td>W – Jan 31</td>
<td>Conformation – Functional Type</td>
<td>Gaits / Limb Tracking [HTU]</td>
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<tr>
<td>M – Feb 5</td>
<td>Bone – Developmental Orthopedic Disease</td>
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<tr>
<td>W – Feb 7</td>
<td>Bone – Training Adaptations</td>
<td>Conformation [HTU]</td>
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<tr>
<td>M – Feb 12</td>
<td>Tendons and Ligaments</td>
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<tr>
<td>W – Feb 14</td>
<td>Tendons and Ligaments</td>
<td>Breed Standards [HTU]</td>
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<tr>
<td>M – Feb 19</td>
<td><strong>Exam 1</strong></td>
<td></td>
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<tr>
<td>W – Feb 21</td>
<td>Joints and Osteoarthritis</td>
<td>Limb Dissections [HTU]</td>
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<tr>
<td>M – Feb 26</td>
<td>The Hoof</td>
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<tr>
<td>W – Feb 28</td>
<td>Muscle – Gross Anatomy</td>
<td>Limb Dissections [HTU]</td>
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<tr>
<td>M – Mar 4</td>
<td>Energetics of Exercise</td>
<td></td>
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<tr>
<td>W – Mar 6</td>
<td>Muscle – Physiology</td>
<td>Muscle Anatomy [HTU]</td>
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<tr>
<td>M – Mar 11</td>
<td>Spring Break – No Class</td>
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<tr>
<td>W – Mar 13</td>
<td>Spring Break – No Class</td>
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<tr>
<td>M – Mar 18</td>
<td>Muscle – Physiology</td>
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<tr>
<td>M – Mar 25</td>
<td>Muscle – Disorders</td>
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<tr>
<td>W – Mar 27</td>
<td>Thermoregulation</td>
<td>Exercise Testing [CVM]</td>
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<tr>
<td>M – Apr 1</td>
<td><strong>Exam 2</strong></td>
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<tr>
<td>W – Apr 3</td>
<td>Cardiovascular System</td>
<td>Thermoregulation [HTU]</td>
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<tr>
<td>M – Apr 8</td>
<td>Cardiovascular / Respiratory System</td>
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<tr>
<td>W – Apr 10</td>
<td>Respiratory System</td>
<td>Cardio-Respiratory [HTU]</td>
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<tr>
<td>M – Apr 15</td>
<td>Evaluating Fitness</td>
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<tr>
<td>W – Apr 17</td>
<td>Principles of Conditioning</td>
<td>Fitness Evaluation [HTU]</td>
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<tr>
<td>M – Apr 22</td>
<td>Conditioning Programs</td>
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<tr>
<td>W – Apr 24</td>
<td>Conditioning Programs</td>
<td>eXtreme Obstacle Challenge</td>
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<tr>
<td>F – May 3</td>
<td><strong>Exam 3 (7:30–9:30am)</strong></td>
<td>ANS Rm 151</td>
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### Important Dates
- **Quizzes Due**: Each Wed 1:00pm
- **Projects Due**:
  - February 12
  - April 17
- **Exams**:
  - February 19
  - April 1
  - May 3
- **25-furlong Derby**:
  - February 21
  - April 13

* Lecture/Lab topics and Exam/Assignment due dates are subject to change. If any changes are made, you will receive at least one week notice.