This is a 2-credit lecture (ANS 3079) with 1-credit laboratory (ANS 4231, section 11CF) course focused on the principles of conformation and its relationship to biomechanics, as well as a study of anatomical and physiological aspects of major body systems that enable the horse to be a natural and noteworthy athlete.

During this course, you will:
1) gain an appreciation for the unique design of the horse as an athlete;
2) learn to evaluate conformation for correctness and faults and relate it to the biomechanics of movement;
3) develop a functional understanding of equine anatomy at the cellular, tissue and systems levels;
4) investigate the muscular, skeletal, cardiovascular, respiratory, thermo-regulatory, and support systems in horses and the response of these systems to exercise and training;
5) learn to evaluate physical fitness and design conditioning programs specific to the athletic event for which a horse was selected.

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

Instructor
Dr. Lori K. Warren
office: ANS Suite 210, Office 210G
phone: (352) 392-1957
email: LKW Warren@ufl.edu
*email is the preferred way to reach me

Office hours
Mon 10:00 – 11:30 a.m.
Mon 1:00 – 3:00 p.m.
Wed 10:00 – 11:30 a.m.
Or, email for an appointment (I will usually respond within 24 hours)

Teaching assistant
Ellen Rankins
office: ANS Room 206
email: ellen.rankins@ufl.edu

what's in this syllabus?
course resources p. 2
course requirements p. 2
grading policy p. 3
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UF policies & services p. 4
schedule of topics p. 5
course resources

This course has no required textbook. Instead, I have gathered some articles (from 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 coming to class; 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.

Below are some books that are suggested as reference material for this course:

references

CANVAS will serve as our course website.
- http://elearning.ufl.edu/
- Click the “e-Learning in CANVAS” button, then enter your Gatorlink ID & password.
- Check Settings and Notifications in your account – make sure the “Announcements” and “Conversation” settings are set to ASAP to receive timely announcement about the course.
- CANVAS will contain:
  - Announcements
  - Course notes
  - Articles, Videos, Links
  - Assignments
  - Your Grades

- Course Notes will be posted as PDF files on CANVAS under the “Modules” link.
- Notes are fill-in-the-blank style with color diagrams.
- Notes are structured to assist you with note-taking in class; but keep in mind, anything said in lecture or lab is fair game for quizzes and exams!
- Printing Notes BEFORE coming to lecture is recommended. Alternatively you may bring your laptop or tablet and type directly on the Notes. However, I recommend you print them to avoid distractions and to help you retain material better.

course notes

- major assignments – You will be completing two major writing assignments. A summary of each one is provided here; further detail is provided under the “Assignments” link on CANVAS.
  - Relating Form to Function
  - DUE: February 12
  - The purpose of this assignment is to reinforce the concept “form follows function.” You will choose your favorite equine athlete and research what made this horse excel at their sport (breed, conformation, attitude, and athleticism).
  - Training the Equine Athlete
  - DUE: April 18
  - For this assignment, you will select and attend two different equine competitive events. You will be asked to evaluate the athletic demands of each activity and investigate how the horse should be prepared for each type of competition. A running calendar of events will be listed under this assignment on CANVAS.

- weekly quizzes – To encourage you to keep up with the course content, short (5 pt) quizzes will be given on Wednesdays at the beginning of each lab period.
- exams – There will be 3 exams, each covering approximately one-third of the course material. Exam format will consist of multiple choice, true/false, matching, short answer, and essay questions.

La Biosthetique Sam is a two-time Olympic gold medal winner (2012, 2016) in eventing. This is the “triathlon” of equine sports & includes dressage, cross-country, and stadium jumping.

lab activities – Labs will be held on Wednesdays from 3:10 - 4:55pm. Plan for most labs to last the entire 2 hours. The location of each lab will vary and will be announced at the beginning of each week. Labs will consist of live animal evaluation, dissection and study of harvested tissues, video discussions, and other activities. Each lab is designed to supplement and enhance your understanding of lecture material. All labs will have graded worksheets.

- Appropriate dress is required. Unsafe footwear (flip-flops, open-toed shoes) will NOT be allowed. Boots or leather shoes are preferred, but athletic shoes can suffice. Labs may be messy (eg. tissue fluids, blood, paint, horse slobber); avoid wearing clothes that you don’t want damaged.

- weekly quizzes – To encourage you to keep up with the course content, short (5 pt) quizzes will be given on Wednesdays at the beginning of each lab period.
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La Biosthetique Sam is a two-time Olympic gold medal winner (2012, 2016) in eventing. This is the “triathlon” of equine sports & includes dressage, cross-country, and stadium jumping.
There will be no separate lecture and lab grades. Whatever grade you earn for the combined lecture and lab will be assigned for both ANS 3079L and ANS 4231.

**grading scale**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td>90 – 100 %</td>
</tr>
<tr>
<td>B</td>
<td>80 – 89.9 %</td>
</tr>
<tr>
<td>C</td>
<td>70 – 79.9 %</td>
</tr>
<tr>
<td>D</td>
<td>60 – 69.9 %</td>
</tr>
<tr>
<td>E</td>
<td>less than 60 %</td>
</tr>
</tbody>
</table>

- There will be NO grading curve.
- COURSE GRADE (%) = \[ \frac{[\text{pts earned on labs + assignments + quizzes / total pts possible}] \times 0.40 + [\text{pts earned on exams / 300 pts}] \times 0.60} \]
- You have ONE WEEK after the return of any graded item to resolve questions. After that, all grades are final.
- Retain all graded items until assigned a final course grade.
- UF policies for assigning grade points: [https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx](https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx)

**attendance, make-up and late work**

**attendance**

Regular attendance is expected and active participation is necessary for successful completion of this course. If you know you will be absent from class, please contact the instructor at least one week in advance of the date(s) missed. If you have an unforeseen emergency, you will need to provide written documentation to support your absence (eg, if you are sick, a doctor’s note is required).

**make-up work**

It is your responsibility to contact the instructor to develop a plan to make-up any work you miss. Missed work for excused class absences will be accepted with no penalty if completed by the agreed-upon extended deadline.

The opportunity to make-up missed work will not be offered without a valid excuse. This policy applies to all exams, quizzes, assignments, and labs. The nature of some lab activities may prevent a make-up lab from being offered. Class attendance and make-up work policies are consistent with UF policies found at: [https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx](https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx)

**late work**

It is expected that ALL assignments will be submitted on time. Without a valid absence, assignments turned in late will receive the following penalty:

- 0.1 – 24 hrs late = – 25%
- 24 – 48 hrs late = – 50%
- >48 hrs late = NOT accepted

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### class etiquette

- Be respectful of other students’ opinions, knowledge and background. If you have more “horse sense” than your lab partner, be a helper, not a hater.
- Horses can exhibit unpredictable behavior that can cause serious bodily harm. Pay attention. Seek guidance if you are uncomfortable working with them.
- Dress appropriately for all labs.
- Avoid electronic distractions. Silence (& ignore!) your phone during class. Use your laptop to take notes, not surf the internet or check Facebook.

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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 exam 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 a commitment & release form** by February 21

2) **keep a training journal** that documents your daily training progress and periodic fitness assessments (you will turn this in)

3) **complete the 25-Furlong Derby** on April 14 in **34 minutes or less** or provide proof of completion of another sanctioned race approved by Dr. Warren in the same time limit.

Go to the “Assignments” link on CANVAS for additional information.

Does a health issue prevent you from running? Discuss alternative activities (swimming, biking) with Dr. Warren.
online course evaluation process

Student assessment of instruction is an important part of efforts to improve teaching & learning. At the end of the semester, you will have the opportunity to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. These evaluations are conducted online at https://evaluations.ufl.edu. You will be notified when the evaluation system is open (typically the last two weeks of the semester). It is expected that you will contribute your feedback for this course and the others in which you are enrolled this term. Summary results of course evaluations are available at https://evaluations.ufl.edu/results.

I value your feedback!

UF policies

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 the possible sanctions (http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/).

It is assumed that you will complete all work independently in this course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g., assignments, quizzes, exams).

Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor of this class.

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.

students with disabilities – the Disability Resource Center coordinates the needed accommodations of students with disabilities, including recommending accommodations, accessing special equipment, and providing interpretation services. Students requesting accommodations should first register with the Disability Resource Center by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation.

Disability Resource Center ■ 352-392-8565 ■ www.dso.ufl.edu/drc/

UF services

health and wellness

U Matter, We Care ■ if you or a friend is in distress, call (352) 392-1575 or contact umatter@ufl.edu

counselling & wellness center ■ www.counseling.ufl.edu/ ■ (352) 392-1575 ■ counselling services ■ workshops ■ self-help library ■ wellness coaching

sexual assault recovery services ■ (352) 392-1161 ■ Student Health Care Center

academic resources

campus police department ■ 392-1111 ■ or 9-1-1 for emergencies

e-learning technical support ■ (352) 392-4357 ■ helpdesk@ufl.edu ■ http://elearning.ufl.edu

career resource center ■ Reitz Union ■ www.crc.ufl.edu ■ (352) 392-1601 ■ career assistance & counselling

library support ■ receive assistance with using libraries or finding resources ■ http://cms.uflib.ufl.edu/ask

teaching center ■ general study skills and tutoring ■ http://teachingcenter.ufl.edu

writing studio ■ help brainstorming, formatting, & writing papers ■ 302 Tigert Hall ■ (352) 846-1138

student complaints ■ if you wish to file a complaint about this course ■ https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf ■ or contact the Animal Sciences Undergraduate Coordinator’s office (352-392-2186) and speak to Mrs. Amie Imler or Dr. Saundra TenBroeck

Triple Crown Winner, American Pharoah ended a 37-year drought with his decisive wins in the Kentucky Derby, Preakness Stakes and Belmont Stakes in 2015. He also won the 2015 Breeder’s Cup Classic, earning him racing’s first “Grand Slam Champion” title.

It has been reported that...
### Location of labs

- **ANS 155** – several labs will be held in this Animal Sciences classroom
- **HTU** – Horse Teaching Unit 1934 SW 63rd Ave, Gainesville
- **CVM** – we will have a couple of labs at the UF vet school. In all cases, we will arrange to meet at the Animal Sciences building (outside ANS 155) and walk over to the vet school together.
- **TBA** – “to be arranged”

The location of each lab will be announced in class and on CANVAS at the beginning of each week.

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**Hank** is a therapy horse providing emotional, social, cognitive, & physical benefits to military veterans and children with disabilities. Hank was recognized as the PATH International 2017 Horse of the Year.

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### Course Schedule*

<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture</th>
<th>Lab [+Location]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>M</strong> – jan 8</td>
<td>course intro / amazing athletes</td>
<td></td>
</tr>
<tr>
<td><strong>W</strong> – jan 10</td>
<td>bone – skeletal anatomy</td>
<td>#NO LAB this week#</td>
</tr>
<tr>
<td><strong>M</strong> – jan 15</td>
<td>MLK HOLIDAY – NO CLASS</td>
<td></td>
</tr>
<tr>
<td><strong>W</strong> – jan 17</td>
<td>conformation – balance &amp; symmetry</td>
<td>bone [CVM]</td>
</tr>
<tr>
<td><strong>M</strong> – jan 22</td>
<td>conformation – proportions &amp; angles</td>
<td></td>
</tr>
<tr>
<td><strong>W</strong> – jan 24</td>
<td>conformation – limb alignment</td>
<td>balance &amp; angles [HTU]</td>
</tr>
<tr>
<td><strong>M</strong> – jan 29</td>
<td>gaits / quality of movement</td>
<td></td>
</tr>
<tr>
<td><strong>W</strong> – jan 31</td>
<td>biomechanics</td>
<td>gaits / limb tracking [HTU]</td>
</tr>
<tr>
<td><strong>M</strong> – feb 5</td>
<td>conformation – functional type</td>
<td></td>
</tr>
<tr>
<td><strong>W</strong> – feb 7</td>
<td>bone – develop. orthopedic disease</td>
<td>breed conformation [HTU]</td>
</tr>
<tr>
<td><strong>M</strong> – feb 12</td>
<td>bone – training adaptations</td>
<td></td>
</tr>
<tr>
<td><strong>W</strong> – feb 14</td>
<td>tendons and ligaments</td>
<td>conformation [ANS 155]</td>
</tr>
<tr>
<td><strong>M</strong> – feb 19</td>
<td>EXAM 1</td>
<td></td>
</tr>
<tr>
<td><strong>W</strong> – feb 21</td>
<td>tendons and ligaments</td>
<td>limb dissections [ANS 155]</td>
</tr>
<tr>
<td><strong>M</strong> – feb 26</td>
<td>joints and osteoarthritis</td>
<td></td>
</tr>
<tr>
<td><strong>W</strong> – feb 28</td>
<td>the hoof</td>
<td>limb dissections [ANS 155]</td>
</tr>
<tr>
<td><strong>M</strong> – mar 5</td>
<td>SPRING BREAK – NO CLASS</td>
<td></td>
</tr>
<tr>
<td><strong>W</strong> – mar 7</td>
<td>SPRING BREAK – NO CLASS</td>
<td></td>
</tr>
<tr>
<td><strong>M</strong> – mar 12</td>
<td>muscle – gross anatomy</td>
<td></td>
</tr>
<tr>
<td><strong>W</strong> – mar 14</td>
<td>energetics of exercise</td>
<td>muscle anatomy [HTU]</td>
</tr>
<tr>
<td><strong>M</strong> – mar 19</td>
<td>muscle – physiology</td>
<td></td>
</tr>
<tr>
<td><strong>W</strong> – mar 21</td>
<td>muscle – training adaptations</td>
<td>muscle biology [ANS 155]</td>
</tr>
<tr>
<td><strong>M</strong> – mar 26</td>
<td>muscle – disorders</td>
<td></td>
</tr>
<tr>
<td><strong>W</strong> – mar 28</td>
<td>cardiovascular system</td>
<td>exercise testing [CVM]</td>
</tr>
<tr>
<td><strong>M</strong> – apr 2</td>
<td>EXAM 2</td>
<td></td>
</tr>
<tr>
<td><strong>W</strong> – apr 4</td>
<td>cardiovascular / respiratory system</td>
<td>cardio-respiratory [HTU]</td>
</tr>
<tr>
<td><strong>M</strong> – apr 9</td>
<td>respiratory system</td>
<td></td>
</tr>
<tr>
<td><strong>W</strong> – apr 11</td>
<td>thermoregulation</td>
<td>thermoregulation [HTU]</td>
</tr>
<tr>
<td><strong>M</strong> – apr 16</td>
<td>principles of conditioning</td>
<td></td>
</tr>
<tr>
<td><strong>W</strong> – apr 18</td>
<td>evaluating fitness</td>
<td>fitness evaluation [HTU]</td>
</tr>
<tr>
<td><strong>M</strong> – apr 23</td>
<td>conditioning programs</td>
<td></td>
</tr>
<tr>
<td><strong>W</strong> – apr 25</td>
<td>conditioning programs</td>
<td>eXtreme obstacle challenge</td>
</tr>
<tr>
<td><strong>W</strong> – may 2</td>
<td>EXAM 3 – 10:00am–noon</td>
<td></td>
</tr>
</tbody>
</table>

* 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.