KINE 5390 – Physiological Assessment in the Health Sciences

COURSE SYLLABUS

Instructor: Jakob L. Vingren, Ph.D.

Office Location: PEB 210-H

Office hours: T: 8.30-9.30AM

By appointment (preferred)

Contact Information: (940) 565-3899

jakob.vingren@unt.edu

Please include KINE 5390 in the title of all emails

Email response policy: I will attempt to answer all emails within 24 hours on Mon-Fri. Students must use their UNT e-mail for any sensitive information – I will not respond with specific student information to e-mails originating from other accounts.

Online: This class has a section on UNT’s Blackboard.

Lecture Schedule: T: 6:30PM-9.20PM

Lecture Location: PEB 219

Required Textbook: None

Course Description: Evaluation of assessment techniques used in exercise physiology and health/fitness disciplines, including fitness assessment of working capacity, biochemical assays, advanced metabolic assessment, flexibility assessment and strength assessment.

Prerequisite(s): A course in exercise physiology or consent of department.

Special accommodations: Please contact me as soon as possible if you need special accommodations for classes, assignments, or exams. You must register with the UNT Office of Disabilities accommodation before any special accommodation can be made.

Please keep all cellular devices turned off during class, that also means no-reading or sending texts etc. They are distracting to the instructor and your fellow students. Please see me if you must keep your phone on during class due to potential medical emergencies.
<table>
<thead>
<tr>
<th>Week (date)</th>
<th>Topics/modules and Exams</th>
<th>Reading etc.</th>
<th>Assignments (due dates)</th>
</tr>
</thead>
</table>
| 1 (1/19)    | Pre-assessment considerations | ACSM paper and chapter handouts | -Online training:  
1. Blood borne pathogen  
2. BLS2  
3. NIH-IRB  
-Personal info sheet |
| 2 (1/26)    | Laboratory safety  
-Blood collection | -Online training:  
1. Blood borne pathogen  
2. BLS2  
3. NIH-IRB  
-Personal info sheet |
| 3 (2/2)     | Basic hematological analyses  
-Blood processing  
-Basic biochemistry lab skills | | |
| 4 (2/9)     | Biochemical analysis of blood samples | | |
| 5 (2/16)    | Treadmill and cycle ergometer  
-Indirect calorimetry: oxygen consumption etc. (VO₂, VCO₂, RER) | | |
| 6 (2/23)    | Stress test w. EKG  
-Lactate threshold test | | |
| 7 (3/1)     | Body composition | | |
| 8 (3/8)     | Movement analysis  
-Athlete performance assessment | Meets at Michael Johnson Performance Center,  
6051 Alma Rd,  
McKinney, TX 75070 Frisco | |
| (3/15)      | Spring break | | |
| 9 (3/22)    | Midterm | | |
| 10 (3/29)   | Muscle strength assessment  
(isotonic and isokinetic) | | |
| 11 (4/5)    | Muscle power assessment | | |
| 12 (4/12)   | Muscle biopsy  
-Biochemical analysis of muscle tissue | -Take-home assignment provided to students |
| 13 (4/19)   | In the field testing: aerobic capacity | | |
| 14 (4/26)   | In the field testing: muscle power, anaerobic capacity, agility | | |
| 15 (5/3)    | Student presentations | -Take-home assignment due  
-Student presentation  
-Lab manual due |
| 16 (5/10)   | Final (comprehensive) | -Bring your lab manual!!! | |
Grading:

<table>
<thead>
<tr>
<th>Item</th>
<th>Maximal score</th>
<th>Final Grade (points)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm</td>
<td>30 points</td>
<td>A ≥85</td>
</tr>
<tr>
<td>Final</td>
<td>40 points</td>
<td>B 75-84</td>
</tr>
<tr>
<td>Lab manual</td>
<td>10 points</td>
<td>C 65-74</td>
</tr>
<tr>
<td>Group presentation/take-home assignment</td>
<td>20 points</td>
<td>D 55-64</td>
</tr>
<tr>
<td><strong>Total available points:</strong></td>
<td><strong>100 points</strong></td>
<td>F 54 and below</td>
</tr>
</tbody>
</table>

All grading for this course will be criterion based (i.e. your grade will not depend on the score of other students). No additional or extra credit will be offered; please do not ask for any.

Failure to **Satisfactory** complete each assignment will result in the grade of “F” for this course.

**Reading Assignments**
The reading assignments listed in this syllabus are intended to *supplement* the lecture materials. Some of the material in the text will not be covered in lecture but may be included on the exams. Similarly, all of the information given in lecture will not be found in the text, but may also be included on the exams. I request that you read the assigned texts *before* the scheduled lectures to which they apply.

**Exams:**
Exams will cover the material specified in the course calendar unless otherwise delineated by the instructor. Although the exams are not designed to be cumulative, physiology is cumulative by nature. Thus, you will be required to use some of the knowledge you acquired in earlier sections during the final exam.

**Lab manual:**
You are to **INDEPENDTLY** compose your own testing manual. The manual should cover all tests and procedures that are part of this course. This is intended to be a resource for you continue on in your professional career; so make it good!!! Also you can bring, and will need, your manual for the final exam. This should be a typed manual with sufficient detail that you will be able to conduct any test or procedures years from now, long after you might forget some of the specifics/details from this course.

**Group Take-home assignment and presentation:**
You will be divided into groups of 2-3 students and giving a specific scenario for which you must determine the appropriate battery of tests. This should include why each test is chosen and the basics of how each test is conducted. The presentation should last ~20-30 min.

**Attire:**
When the schedule indicates exercise or body composition testing all students **MUST** wear appropriate exercise attire including shoes. (Weeks 5, 6, 7, 8, 10, 11, 13, & 14).
When the schedule indicates biochemical analysis or other in-lab activities, closed-toe shoes **MUST** be worn. (Weeks 2, 3, 4, & 12).
Examination Policies
1. Two exams will be scheduled during the semester. Each exam will consist of objective items (true-false, multiple choice, matching etc.) and short essay answers. The exams will not be cumulative.
2. Students will not be allowed to leave the room during exams and quizzes. Please attend to any personal needs before the exam.
3. Make-up exams and quizzes will be considered only for exceptional circumstances or university approved absence. (Note: “I overslept”, “I’m tired”, “I’m not prepared”, etc. are not exceptional circumstances). Any student who fails to contact the instructor prior to any missed exam or quizzes might not be allowed to make-up the exam. It is your responsibility to contact the instructor in case of an emergency.
4. Absence for medical reasons requires written dated verification by a physician.
5. Exams will not be rescheduled based on a student's personal work/school schedule. Please plan ahead.
6. Questions/concerns regarding grading for any exam or assignment must be resolved with the instructor within one week of the date graded exams are returned to the student.
7. All exams are non-circulating.
8. Make-up exams will differ from the corresponding test given to the rest of the class.
9. During exams hats must be removed or turned backwards and phones/pagers must be turned off and stored out of sight.
10. In the event that a student arrives late to an exam and one or more students have already completed the exam, the late student will not be allowed to take the exam and will receive a 0 for that exam.
11. Students must bring #2 pencils to each exam and quiz.

Other important information
Feedback & exam surveys: During the semester I will be asking you for feedback regarding this class. Please use this opportunity as it will help me to improve this class for you and future students. Please be as specific as possible in your comments. In addition, I encourage you to come by my office if you have questions, suggestions, or concerns regarding this class.

The Student Evaluation of Teaching Effectiveness (SETE) is a requirement for all organized classes at UNT. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. I am very interested in the feedback I get from students, as I work to continually improve my teaching. I consider the SETE to be an important part of your participation in this class.

Classroom Behavior: Every student is expected to conduct themselves in a manner appropriate for an Institution of Higher Learning. Disruptive or degrading behavior will not be tolerated. See Code of Student Conduct for further details.

American with Disabilities Compliance: The Department of Kinesiology, Health Promotion, and Recreation does not discriminate on the basis of disability in the recruitment and admission of students, the recruitment and employment of faculty and staff, and the operation of any of its programs and activities, as specified by federal laws and regulations. The designated liaison for the department is Ms. Doryce Judd, Physical Education Building, Room 209, 565-2651. Copies
of the KHPR Department ADA Compliance policies are available in the Chair’s Office, Physical Education Building, Room 209. Copies of the College of Education ADA Compliance Document are available in the Dean’s Office, Mathews Hall 214. The student has the responsibility of informing the course instructor of any disabling conditions that will require modifications to avoid discrimination.

**Academic Dishonesty:** Cheating will not be tolerated in the class. You are not to receive information from another student or give information to another student during a test or quiz. You are to use only your memory. Students caught cheating during an examination or quiz will be charged under the University’s Code of Student Conduct. Among other punishments, students found guilty run the risk of having their score changed to a zero, receiving a grade of F for the course, and/or dismissal from the University. Academic dishonesty includes cheating, plagiarism, fabrication, and facilitating academic dishonesty. Cheating refers to collaborating on individual assignments and using unauthorized materials. Plagiarism refers to presenting ideas, words, or statements of another person without giving credit to that person. If you have questions about cheating or plagiarism, please see me.

**Family Educational Rights and Privacy Act (FERPA) Information:** Students have the right to expect their grades will be kept confidential. There are a few things, because of the size and/or nature of this class, the instructor must advise you of regarding collection and distribution of test results, quiz scores, homework assignments, roll sheets, projects, etc. During this class it may be necessary for you to pass your assignments forward to the instructor or it may be necessary for the instructor to call your name and then return your completed assignment to you by passing it across the room. The instructor, under the reasonable assumption guidelines, assumes students are collecting only their own materials. Every attempt will be made to keep your information confidential. Neither your course grades nor grades for any assignment will be posted in a way that could result in your being identified by other students or faculty members.

**UNT E-mail and Blackboard.** All students should activate and regularly check their UNT-E-mail account and the Blackboard site for this class. A lot of class information will be distributed ONLY via these outlets.

**The instructor reserves the right to alter any portion of this syllabus.**