Syllabus – Spring 2015

Excluding materials for purchase, syllabus information may be subject to change. The most up-to-date syllabus is located within the course in HuskyCT.

Course and Instructor Information

Course Title: KINS 5507 - Exercise Prescription for Special Populations  
Credits: 3  
Format: Online  
Prerequisites: An undergraduate course in exercise prescription and/or exercise science/kinesiology is recommended.  
Professor: Dr. Linda S. Pescatello  
Office: Gampel Pavilion, Room 206  
Email: linda.pescatello@uconn.edu  
Telephone: 860-486-0008  
Fax: 860-486-1123  
Office Hours/Availability: Mondays 4:00-5:00 PM during which time I will be in my Gampel Pavilion office, Room 206; Wednesdays 2:00-4:00 PM online; or by appointment. I will make every effort to respond to all inquiries within 24 hours.

Course Materials

Required course materials should be obtained before the first day of class.

Texts are available through a local or online bookstore. The UConn Co-op carries many materials that can be shipped via its online Textbooks To Go service. For more information, see Textbooks and Materials on our Enrolled Students page.

Required Materials:  

KINS 5507 HuskyCT Online Course Materials, accessed with your NetID and password. Please note all course communications via email should occur within HuskyCT.

US Department of Health and Human Services. 2008 Physical Activity Guidelines for Americans Be Active, Healthy, and Happy.

Relevant American College of Sports Medicine position stands.
Supplemental Recommended Texts:

Additional course readings and media are available within HuskyCT, through either an Internet link or Library Resources.

Catalog Course Description: KINS 5507 is an in-depth examination and application of the principles of exercise prescription in preventive medicine. Students will advance their knowledge in prescribing exercise for special populations that include groups with overweight and obesity; and cardiovascular, pulmonary, metabolic, and musculoskeletal diseases and conditions, among others. In addition, normal populations with special considerations will be discussed including children and adolescents, older adults, and pregnancy, among others.

Instructor’s Course Description: This course is designed to provide students with the opportunity to examine and apply the American College of Sports Medicine principles of exercise testing and prescription for a variety of special populations. These populations include those with disease and “normal” populations with special considerations. Students will: 1) participate in HuskyCT discussions on topics presented in class; 2) complete a health/fitness assessment case study and its interpretation; 3) participate in a group case study involving exercise testing and prescription considerations regarding an individual with multiple chronic diseases and health conditions and/or special considerations; and 4) write and present a systematic scientific review on exercise testing and prescription considerations for a special population of choice.

Course Goals
By the end of the semester, students should be able to:

1. Examine and apply the American College of Sports Medicine (ACSM) principles of exercise testing and prescription to healthy, adult populations.
2. Examine and apply the American College of Sports Medicine (ACSM) principles of exercise testing and prescription to a variety of special populations with chronic diseases and health conditions as well as normal populations with special considerations.
4. Perform and present a systematic scientific review on exercise testing and prescription considerations for a special population of choice.
5. Apply principles of exercise prescription in the prevention, treatment, and management of a variety of chronic diseases and health conditions.

Course Outline and Objectives

Week 1
Orientation & Module 1 – Course Introduction

Week 2
Module 2 – Cardiovascular Disease Risk Factors
1. Identify the major cardiovascular disease risk factors.
2. Compare and contrast the new and previous blood pressure and cholesterol guidelines.
3. Discuss and apply the effect and implications of the new blood pressure or cholesterol guidelines on exercise prescription in practice.
Weeks 3 & 4
**Module 3 – Principles of Pre-Exercise Participation Health Screening**
1. Identify the benefits and risks of exercise
2. Identify the ACSM preparticipation health/fitness screening procedures.
3. Discuss and apply the health-related fitness components, testing procedures, and interpretation.

Week 5
**Module 4 – Systematic Scientific Review Outlines**
1. Discuss the detailed content outline of your systematic scientific review with the professor as well as any other course related matters.

Week 6
**Module 5 – Exercise Prescription for Apparently Healthy Adults**
1. Identify the FITT-VP principle of exercise prescription.
2. Recognize the various methods for prescribing exercise intensity and the distinctions among them.
3. Deliberate how much exercise is needed to improve physical fitness versus health.

Weeks 7 & 8
**Module 6 – Common Medications that Affect the Exercise Response**
1. Recognize common medication classes likely to be encountered by health/fitness professionals, and how they may influence the exercise responses.
2. Identify medication resources used by health professionals and exercise specialists.
3. Apply medication concepts and resource management to a case study.

Week 9 - SPRING BREAK- YEAH!!!

Week 10
**Module 7 – Behavioral Strategies to Improve Exercise Adherence**
1. Recognize behavioral theories and strategies designed to improve exercise adherence including motivational interviewing, contingency management, and stages of change.
2. Apply behavioral theories, strategies, and technology to increase exercise adherence to a case study.

Week 11
**Module 8 – Group Case Studies: Exercise Prescription for an Adult Who Maybe Apparently Healthy or May Have Multiple Chronic Diseases and Health Conditions**
1. Formulate and apply the exercise preparticipation health screening procedures, the recommended FITT-VP exercise prescription, and strategies to increase exercise adherence to an assigned case study with multiple chronic diseases and health conditions and/or special considerations.

Weeks 12-15
**Module 9 – Systematic Scientific Review**
1. Perform and present a systematic scientific review.
2. Overview the public health importance, pathophysiology, and risk factors for the co-morbidities and/or the special considerations in exercise prescription for your special population.
3. Discuss the health benefits of physical activity for your special population.
4. Formulate and apply the appropriate exercise preparticipation health screening and exercise testing procedures, the unique considerations in exercise testing and prescription, the recommended FITT-VP exercise prescription recommendations, special considerations in exercise prescription, and behavioral change theories and strategies to increase exercise adherence for your special population.
Course Requirements and Grading

Course Requirements/Evaluations: (Detailed descriptions of requirements follow this listing)

<table>
<thead>
<tr>
<th>Course Components</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract of Systematic Scientific Review</td>
<td>5%</td>
</tr>
<tr>
<td>Detailed Content Outline of Systematic Scientific Review</td>
<td>5%</td>
</tr>
<tr>
<td>Preliminary Draft of Systematic Scientific Review with Peer Review</td>
<td>15%</td>
</tr>
<tr>
<td>Systematic Scientific Review with Peer Review(s)</td>
<td>25%</td>
</tr>
<tr>
<td>Systematic Scientific Review Presentation (15%) and Discussion (5%)</td>
<td>20%</td>
</tr>
<tr>
<td>Health/Fitness Assessment &amp; Interpretation of a Case Study – Mr. Lionel Opie</td>
<td>10%</td>
</tr>
<tr>
<td>Group Case Study Presentation (7%) and Discussion (3%)</td>
<td>10%</td>
</tr>
<tr>
<td>Participation in HuskyCT &amp; Class Discussions</td>
<td>10%</td>
</tr>
</tbody>
</table>

Systematic Scientific Review of a Special Population

Choose a special population that includes a group with overweight and obesity; cardiovascular, pulmonary, metabolic, and musculoskeletal diseases or conditions; pregnancy; or any other special population that interests you. Please note the special population you choose should be unique from your peers, and final selections will be made on a first come first serve basis by the instructor.

Systematically review the literature on a special population of choice and include the following information in your review: 1) the reasons this population is important to address from a public health perspective, please see Healthy People 2020; 2) the disease/condition’s pathophysiology (if applicable), i.e., etiology, signs and symptoms, and treatment recommendations; 3) the benefits of habitual physical activity for this special population; 4) appropriate preparticipation health screening and exercise testing procedures; 5) unique considerations in exercise testing; 6) the recommended FITT-VP exercise prescription recommendations; and 7) special considerations in exercise prescription for the selected special population.

The systematic review should include relevant data bases, key search terms, and inclusion/exclusion criteria for studies chosen to be included in your review. If you are new to systematic review procedures, please contact library liaison Jill Livingston as soon as you have determined your special population, as she can guide you through the process. Review the introduction to her lib guide she has prepared for this class. Also refer to her library resource web page. An example of a systematic review is available in HuskyCT.

Abstract (5%)

You will prepare an abstract on the special population you select. The abstract should include the following headings: 1) introduction that consists of the reasons this population is important to address from a public health perspective, please see Healthy People 2020; 2) systematic search methods; and 3) an overview of the FITT exercise prescription recommendations and special considerations that will be discussed in your paper. The abstract should contain a title page with the title of your systematic scientific review, your name, and relevant class information. The abstract itself should be double spaced with 1 inch margins, use Times New Roman or Arial font size of 12, and be no longer in length than 250 words or one type written page that is separated from the cover page. From this abstract will evolve your detailed content outline and the systematic scientific review, the requirements of which are described below.
**Detailed Content Outline (5%)**

The detailed content outline of your systematic scientific review should include the following subheadings: 1) introduction that consists of the reasons this population is important to address from a public health perspective, please see *Healthy People 2020*; 2) the disease/condition’s pathophysiology (if applicable), i.e., etiology, signs and symptoms, and treatment recommendations; systematic search methods; 3) the benefits of habitual physical activity; 4) appropriate preparticipation health screening and exercise testing procedures; 5) unique considerations in exercise testing; 6) the recommended FITT-VP exercise prescription recommendations; 7) special considerations in exercise prescription; and conclusion. Under each subheading include a comprehensive outline of what you will be discussed in this section of your review. The detailed content outline should also include a cover page, the abstract, and the reference list used to date.

The reference listing should be constructed in RefWorks (Please see Jill’s library resource web page RefWorks Tab) and follow the formatting guidelines from a journal relevant to your professional field. These guidelines can be found under *Information for Authors* of that journal and should be attached to your preliminary draft and final submission. Refer to the course schedule for due dates. An example of a content outline is available in HuskyCT.

**Preliminary Draft (15%) and Final Systematic Scientific Review (25%)**

Include in the preliminary draft submission the:
1. completed peer review evaluation form;
2. peer reviewer’s manuscript edits with MS Word track changes;
3. journal’s Information for Authors used for reference formatting with RefWorks.

*Please note:* The preliminary draft of your systematic scientific review must be final / complete when submitted or it will be returned unedited if it is partially written. It is the responsibility of the author to secure and attach the peer review requirement to your preliminary draft and final manuscript submissions.

Include in the final manuscript submission the:
1. preliminary manuscript draft with instructor’s edits;
2. completed peer review evaluation form x 2;
3. peer reviewer’s manuscript edits with MS Word track changes x 2;
4. the journal’s Information for Authors used for reference formatting with RefWorks.

The preliminary draft and final systematic scientific review should not exceed 12 pages including the tables and figures, but not including the cover page, abstract, and references. The pages of the preliminary draft and final systematic scientific review should be numbered beginning with the introduction (excluding the abstract and cover page), doubled spaced with 1 inch margins on all sides, and use a Times New Roman or Arial font size of 12.

The preliminary draft and final systematic scientific review should include the following subheadings: 1) introduction that consists of the reasons this population is important to address from a public health perspective, please see *Healthy People 2020*; 2) the disease/condition’s pathophysiology (if applicable), i.e., etiology, signs and symptoms, and treatment recommendations; 3) systematic search methods; 4) the benefits of habitual physical activity; appropriate preparticipation health screening and exercise testing procedures; 5) unique considerations in exercise testing; 6) the recommended FITT-VP exercise prescription recommendations; 7) special considerations in exercise prescription; and 8) conclusion. The reference listing and citation format within the text should follow the formatting guidelines from a journal relevant to your professional field. These guidelines can be found under *Information for Authors* of that journal and should be attached to your preliminary draft and final submission.

*Peer Review Requirement.* An additional requirement of the systematic scientific review is to have the same classmate edit the preliminary draft and final systematic scientific review. Evidence of the completed peer review will be the edited version of your paper with MS Word track changes by the peer reviewer and the completed peer review evaluation form all of which should be attached to your preliminary draft and final systematic scientific review. Please note with the final submission two edited manuscripts and peer review evaluations forms should be submitted, one for the preliminary draft and the other for the final submission. It is the responsibility of the author to secure and attach the peer review requirement to the preliminary draft and final systematic scientific
Every student should review at minimum one of their classmate’s systematic scientific reviews to meet the course requirement.

For excellent tips on good scientific writing, please see the Writing Center. You may also set up an online appointment at the Writing Center to receive helpful hints for writing your systematic scientific review.

**SPECIAL POPULATION SYSTEMATIC SCIENTIFIC REVIEW PRESENTATIONS (15%) & DISCUSSIONS (5%)**

The special population systematic scientific review presentation should be no longer than 30 minutes in length followed by a discussion period on HuskyCT that is led by the author of the systematic review being discussed. The presentation should include: 1) an introduction including the presentation’s objectives (the objectives should begin with a verb and be written from the learner’s and not the presenter’s perspective) AND an overview; 2) strategies used for the systematic review of the literature; 3) an introduction that includes the public health importance and pathophysiology on the special population and/or pre-existing disease or condition, i.e., etiology, signs and symptoms, and treatment recommendations (if applicable); 4) the benefits of habitual physical activity for this population; 5) preparticipation health screening and exercise testing considerations; 6) the recommended FITT-VP exercise prescription; 7) special considerations in exercise prescription; 8) behavioral change strategies to increase exercise adherence for this special population; and 9) any other information deemed relevant. Use of supplemental materials is encouraged including your power point slides. In addition, complete the self-evaluation on the Presentation Evaluation Form to be turned in to the instructor the week following your presentation at which time your grade will be issued.

**HEALTH/FITNESS ASSESSMENT & INTERPRETATION OF A CASE STUDY (10%)**

KINS 5507 Module 3 consists of a case study that is adapted from: Opie, Lionel H. "Metabolic syndrome." Circulation 115.3 (2007): e32-e35. The case study consists of two parts. Part 1: Preparticipation Health Screening in which you will be provided the clinical profile including any cardiovascular risk factors that Mr. Opie presents with. Part II: Health Fitness Assessment. The information provided in the case study will enable you to then complete the KINS 5507 Health/Fitness Assessment Data Collection Form that will be turned into the instructor on Friday at the end of Week 4. See HuskyCT for additional details.

**GROUP CASE STUDY PRESENTATION (7%) AND DISCUSSIONS (3%)**

At the end of KINS 5507 Module 3 there are four case studies that will be randomly assigned to four groups of students that will then be presented as part of Module 8 on Week 11. For the case study that your group is assigned, you group will formulate and apply the preparticipation health screening procedures, the recommended FITT-VP exercise prescription including addressing any special considerations, and strategies to increase exercise adherence to a case study with multiple chronic diseases and health conditions and/or special considerations. The case study presentation which is recommended to be done in PowerPoint should last no longer than 20 minutes followed by a discussion period on HuskyCT led by the presenting group in which students can deliberate each group’s presentation content and recommendations. Please note each group member will be expected to present during the group’s presentation. See HuskyCT for additional details.

**PARTICIPATION IN HUSKYCT CLASS DISCUSSIONS (10%)**

Discussions on HuskyCT replace in-class discussions. It is a place for you to demonstrate your mastery of the course content and your ability to think critically about the material. Each discussion forum will require you to make an “initial” post and at least two “follow-up” or “response” posts. Initial posts are due on Wednesdays and Response posts are due no later than Friday at 5:00 PM ET of the given week. This allows everyone time to read and respond to your classmates’ posts. You are required to read all posts and to respond to two (2) of your classmates’ initial posts. Responses are not simply agreements/disagreements. They should further the discussion in some way based upon class material and/or relevant literature that should be referenced. Some possibilities include: seeking clarification, providing additional information, references, resources, examples, or posing questions, etc. Remember to respond to the response posts made to your own initial post. See HuskyCT for details.
Grade Allocations:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Letter Grade</th>
<th>GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>98-100</td>
<td>A+</td>
<td>4.3</td>
</tr>
<tr>
<td>93-97</td>
<td>A</td>
<td>4.0</td>
</tr>
<tr>
<td>90-92</td>
<td>A-</td>
<td>3.7</td>
</tr>
<tr>
<td>87-89</td>
<td>B+</td>
<td>3.3</td>
</tr>
<tr>
<td>83-86</td>
<td>B</td>
<td>3.0</td>
</tr>
<tr>
<td>80-82</td>
<td>B-</td>
<td>2.7</td>
</tr>
<tr>
<td>77-79</td>
<td>C+</td>
<td>2.3</td>
</tr>
</tbody>
</table>

Due Dates and Late Policy
All course due dates are identified in the course schedule. Deadlines are based on Eastern Standard Time; if you are in a different time zone, please adjust your submittal times accordingly. The instructor reserves the right to change dates accordingly as the semester progresses. All changes will be communicated in an appropriate manner.

You are expected to complete all assignments on time. Late submissions will not be accepted. Please contact the professor if you are unable to meet a deadline prior to that deadline.

Feedback and Grades
I will make every effort to provide feedback and grades within one week’s time. To keep track of your performance in the course, refer to My Grades in HuskyCT.

Student Responsibilities and Resources
As a member of the University of Connecticut student community, you are held to certain standards and academic policies. In addition, there are numerous resources available to help you succeed in your academic work. This section provides a brief overview to important standards, policies and resources.

Student Code
You are responsible for acting in accordance with the University of Connecticut's Student Code. Review and become familiar with these expectations. In particular, make sure you have read the section that applies to you on Academic Integrity:

- Academic Integrity in Undergraduate Education and Research
- Scholarly Integrity in Graduate Education and Research

Cheating and plagiarism are taken very seriously at the University of Connecticut. As a student, it is your responsibility to avoid plagiarism. If you need more information about the subject of plagiarism, use the following resources:

- Plagiarism: How to Recognize it and How to Avoid It
Copyright

Copyrighted materials within the course are only for the use of students enrolled in the course for purposes associated with this course and may not be retained or further disseminated.

Netiquette and Communication

At all times, course communication with fellow students and the instructor are to be professional and courteous. It is expected that you proofread all your written communication, including discussion posts, assignment submissions, and mail messages. If you are new to online learning or need a netiquette (i.e., network etiquette) refresher, please look at this guide titled, The Core Rules of Netiquette.

Adding or Dropping a Course

If you should decide to add or drop a course, there are official procedures to follow:

- Matriculated students should add or drop a course through the Student Administration System.
- Non-degree students should refer to Non-Degree Registration Information located on the registrar's website.

You must officially drop a course to avoid receiving an "F" on your permanent transcript. Simply discontinuing class or informing the instructor you want to drop does not constitute an official drop of the course. For more information, refer to the:

- Undergraduate Catalog
- Graduate Catalog

Academic Calendar

The University's Academic Calendar contains important semester dates.

Academic Support Resources

Technology and Academic Help provides a guide to technical and academic assistance.

Students with Disabilities

Students needing special accommodations should work with the University's Center for Students with Disabilities (CSD). You may contact CSD by calling (860) 486-2020 or by emailing csd@uconn.edu. If your request for accommodation is approved, CSD will send an accommodation letter directly to your instructor(s) so that special arrangements can be made. (Note: Student requests for accommodation must be filed each semester.)

Blackboard measures and evaluates accessibility using two sets of standards: the WCAG 2.0 standards issued by the World Wide Web Consortium (W3C) and Section 508 of the Rehabilitation Act issued in the United States federal government. (Retrieved March 24, 2013 from Blackboard's Accessibility Information)

Policy Against Discrimination, Harassment and Inappropriate Romantic Relationships

The University is committed to maintaining an environment free of discrimination or discriminatory harassment directed toward any person or group within its community – students, employees, or visitors. Academic and professional excellence can flourish only when each member of our community is assured an atmosphere of mutual respect. All members of the University community are responsible for the maintenance of an academic and work environment in which people are free to learn and work without fear of discrimination or discriminatory harassment. In addition, inappropriate Romantic relationships can undermine the University’s mission when those in positions of authority abuse or appear to abuse their authority. To that end, and in accordance with
federal and state law, the University prohibits discrimination and discriminatory harassment, as well as inappropriate Romantic relationships, and such behavior will be met with appropriate disciplinary action, up to and including dismissal from the University.

More information is available at [http://policy.uconn.edu/?p=2884](http://policy.uconn.edu/?p=2884).

**Sexual Assault Reporting Policy**

To protect the campus community, all non-confidential University employees (including faculty) are required to report assaults they witness or are told about to the Office of Diversity & Equity under the Sexual Assault Response Policy. The University takes all reports with the utmost seriousness. Please be aware that while the information you provide will remain private, it will not be confidential and will be shared with University officials who can help.

More information is available at [http://sexualviolence.uconn.edu/](http://sexualviolence.uconn.edu/).

<table>
<thead>
<tr>
<th>Software Requirements and Technical Help</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Microsoft Word</td>
</tr>
<tr>
<td>● Microsoft PowerPoint</td>
</tr>
<tr>
<td>● Adobe Acrobat Reader</td>
</tr>
<tr>
<td>● Reliable internet access</td>
</tr>
<tr>
<td>● Presentation software (Mediasite Desktop Recorder) and web cam</td>
</tr>
</tbody>
</table>

All students are provided access to Microsoft Office (2010 Windows/2011 Mac) as part of their tuition. For information and download instructions, go to [HuskyTech's website](http://huskytech.uconn.edu). All students will be provided access to Mediasite’s Desktop Recorder for recording your presentations. Students will need a web cam for use with Mediasite. Details are provided in HuskyCT.

This course is completely facilitated online using the learning management platform, [HuskyCT](http://huskyct.uconn.edu). If you have difficulty accessing HuskyCT, online students have access to the in person/live person support options available during regular business hours in the Digital Learning Center. Students also have 24x7 access to live chat, phone and support documents through [eCampus 24/7 Course Support](http://ecampus.uconn.edu).

<table>
<thead>
<tr>
<th>Minimum Technical Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Use electronic mail with attachments.</td>
</tr>
<tr>
<td>● Save files in commonly used word processing program formats.</td>
</tr>
<tr>
<td>● Copy and paste text, graphics or hyperlinks.</td>
</tr>
<tr>
<td>● Work within two or more browser windows simultaneously.</td>
</tr>
<tr>
<td>● Open and access PDF files.</td>
</tr>
<tr>
<td>● Download, install, and run necessary programs (i.e., Mediasite).</td>
</tr>
</tbody>
</table>

University students are expected to demonstrate competency in Computer Technology. Explore the [Computer Technology Competencies](http://ct.uconn.edu) page for more information.

**Evaluation of the Course**

Students will be provided an opportunity to evaluate instruction in this course using the University's standard procedures, which are administered by the [Office of Institutional Research and Effectiveness](http://oire.uconn.edu) (OIRE).

Additional informal formative surveys will be administered within the course as an optional evaluation tool.