**UNIVERSITY OF PITTSBURGH**  
Department of Health and Physical Activity

**HPA 3377  Chronic Disease Case Studies—Spring 2017 (3 credits)**

**Class Schedule:**  
Thursdays, 5:30 - 8:10 pm

**Class Location:**  
Room 101, Physical Activity & Weight Management Research Center  
32 Oak Hill Court, Pittsburgh, PA 15261

**Instructor:**  
Christopher E. Kline, PhD

**Office:**  
Rm 227, 32 Oak Hill Court

**Phone:**  
412-383-4027

**Email:**  
chriskline@pitt.edu

**Office Hours:**  
Mondays, 9 am to 12 noon; also by appointment

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**COURSE DESCRIPTION**

This 3-credit course will provide graduate students the opportunity to learn from expert researchers in chronic disease management and treatment. Students will study the research around several chronic diseases/conditions and engage in discussions with presenters and faculty to achieve a better understanding of the etiology, pathophysiology, implications, and treatment of chronic diseases, and how it relates to clinical and research career opportunities.

**EXPECTED OUTCOMES**

After completion of the course, the student should have acquired:

- A better understanding of the etiology, pathophysiology, implications, and treatments for various chronic diseases/conditions;
- An opportunity to self-reflect on the role of a lifestyle professional (clinician and researcher) within chronic disease treatment;
- Experience reflecting around decisions related to one’s professional path, and potential establishment of relationships with expert clinicians and researchers;
- Experience reading, evaluating, and interpreting peer-reviewed literature;
- Experience critical thinking about relevant questions in the field of chronic disease as it applies to the lifestyle researcher or clinician.

**REQUIRED MATERIALS**

There are no required materials for this text. For supplemental reading on the etiology and pathophysiology of various chronic diseases, students are encouraged to purchase *Human Physiology* (Author: SI Fox; Publisher: McGraw Hill; Edition: 13; Year: 2013; ISBN: 9780073403625) or consult similar physiology texts available through the Pitt library system.

**COURSE DESIGN**

- This course is designed to promote critical thinking and foster an atmosphere of engagement with expert chronic disease clinicians and researchers.
- To accomplish this goal, an emphasis is placed on preparing the student for each week’s lecture through reading journal articles, completing online quizzes, and participating in online discussion boards (see Responsibilities and Assignments section for details).
- Each week’s class session will be structured as follows:
  - 5:30-6:30 pm: Expert presenter
  - 6:30-7:00 pm: Interactive discussion with expert presenter
  - 7:00-8:10 pm: Review of presentation, lecture by Dr. Kline on upcoming topic
RESPONSIBILITIES AND ASSIGNMENTS

Attendance

- It is strongly encouraged that students attend all class sessions, remain for the entire length of each class, and engage with the presenters.
- Business casual attire is required on the evenings of presentations.
- Cell phones are to be turned off or on silent (not vibrate) during class. Surfing the web, checking e-mail, sending text messages, or reading the news during class are not permitted. Students not complying with these rules will be asked to leave the classroom.
- If you know you will be late or unable to attend class, please notify the instructor ASAP; the doors to the building need to be locked and the class is unable to wait for late attendees without advance notice.
- 1 point per week can be earned for attendance = 15 potential points

Journal Articles & Online Quizzes

- Each presenter will provide 1-3 peer-reviewed journal articles for students to read prior to the presentation. In addition, supplemental online videos may be suggested at the discretion of the guest presenter.
- The journal articles will serve as the basis for the interactive discussion sessions following the expert presentations—the articles may (or may not) be specifically addressed in the presenter’s talk.
- To ensure adequate preparation, students will be required to complete a 5-question quiz on CourseWeb each week after reading the articles.
- Quizzes will be open for completion from Friday through Thursday of the following week up until 5:30 pm.
- Quizzes will close each Thursday at 5:30 pm since students are required to complete this task prior to the presentation.
- Up to 5 points per week can be earned from weekly quizzes = 75 potential points

Discussion Board Participation

- Each week, students will participate in a CourseWeb Discussion Board to discuss potential questions for the expert presenter based upon articles they are provided.
- Students will be divided into 4-5 groups based upon their interests (clinical vs. research). Each group will have their own Discussion Board in which they will participate and contribute comments. Leadership of each group’s discussion board will rotate across group members over the course of the term.
- After reading the journal articles each week and prior to the next class, each student will be required to enter the discussion board and contribute 3 questions that they think would be appropriate to ask the presenter. After contributing questions, each student will also be required to engage in discussion regarding these and others’ questions and comments—“engagement” will be determined as posting at least 2 additional responses in addition to the original contribution of 3 questions.
- The group’s facilitator for that week will be responsible for fostering, officiating, and organizing the conversations on the discussion boards. In addition, doctoral student(s) will oversee the discussions and assist with facilitating conversations.
All group members will be asked to vote on the best 5 questions that the group will ask during the interactive discussion with the presenter. The group’s leader for that week will tally votes, finalize the questions, and send them to the instructor and doctoral student(s) via email by 3:00 pm each Thursday.

3 points per week can be earned for participating in the Discussion Boards = 45 potential points

Weekly Interactive Discussion with Presenter
- Once the 5 questions have been submitted and reviewed, they will be distributed back to the groups for use in the interactive discussion session. The expectation is that these questions will be used to facilitate discussion in this session.
- Students will sit with their Discussion Group during class and will work as a group to ask questions to the presenter.
- The instructor will track who asks questions each week during the interactive discussion. Although every student will not be required to ask a question every week, each student will need to ask a question to the presenter at least 5 times during the semester.
- 15 points per week can be earned for asking questions for discussion = 75 potential points (maximum)

Course Reflection
- Following the final class on April 20, an online Qualtrics survey will be administered to all students. This survey will focus on the different presentations and ask the students to reflect on how useful these presentations were.
- The survey’s data will be anonymous; students will need to email the instructor to indicate that they completed the survey to receive credit.
- The survey sent out by the Office of Measurement & Evaluation of Teaching (OMET; see Teaching Survey section below) is independent of this Qualtrics survey. No points are earned by completing the OMET survey, but students are strongly encouraged to complete both surveys.
- 15 points can be earned for completion of the Qualtrics survey

Final Paper
- A final paper will allow students to reflect on a specific chronic disease/condition and how a lifestyle approach may play a role in the prevention, treatment, and/or management of the condition. Students may approach the paper from a clinical- or research-based perspective.
- Students will choose one of the presentations in this course and focus their paper on the chronic disease/condition in that presentation. Students are free to choose any topic, and multiple students will be able to choose the same topic. When choosing a presentation, it will be best to focus on a specific disease/condition that was discussed rather than discussing the broad topic—for instance, instead of choosing “Brain Health and Aging” (Dr. Erickson), one could focus on Alzheimer’s disease or dementia.
- Additional details about the final paper, including the scoring rubric, are provided at the end of the syllabus and will be discussed during class at mid-semester.
- Up to 75 points can be earned in the final paper.
EVALUATION AND GRADING

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Potential points</th>
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<tbody>
<tr>
<td>Attendance</td>
<td>15</td>
</tr>
<tr>
<td>Online quizzes</td>
<td>75</td>
</tr>
<tr>
<td>Online discussion board participation</td>
<td>45</td>
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<tr>
<td>Asking questions during presenter Q &amp; A</td>
<td>75</td>
</tr>
<tr>
<td>Qualtrics ‘reflection’ survey</td>
<td>15</td>
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<tr>
<td>Final paper</td>
<td>75</td>
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<tr>
<td><strong>Total Points:</strong></td>
<td><strong>300</strong></td>
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Your grade will be determined by dividing your actual points by 300 (total possible points) based upon the following scale:

<table>
<thead>
<tr>
<th>Letter grade</th>
<th>Points obtained:</th>
<th>Percentage:</th>
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<tbody>
<tr>
<td>A</td>
<td>≥ 270</td>
<td>≥ 90%</td>
</tr>
<tr>
<td>B</td>
<td>240 – 269</td>
<td>80 to 89.9%</td>
</tr>
<tr>
<td>C</td>
<td>210 – 239</td>
<td>70 to 79.9%</td>
</tr>
<tr>
<td>D</td>
<td>180 – 209</td>
<td>60 to 69.9%</td>
</tr>
<tr>
<td>F</td>
<td>0 – 179</td>
<td>&lt; 60%</td>
</tr>
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COURSE SCHEDULE*

<table>
<thead>
<tr>
<th>Wk</th>
<th>Date</th>
<th>Presenter</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>January 5</td>
<td>Christopher E. Kline, Ph.D.</td>
<td>Course Introduction</td>
</tr>
<tr>
<td>2</td>
<td>January 12</td>
<td>John M. Jakicic, Ph.D.</td>
<td>Physical Activity and Weight Management</td>
</tr>
<tr>
<td>3</td>
<td>January 19</td>
<td>Kirk I. Erickson, Ph.D.</td>
<td>Brain Health and Aging</td>
</tr>
<tr>
<td>4</td>
<td>January 26</td>
<td>Christopher E. Kline, Ph.D.</td>
<td>Sleep Disturbance and Physical Activity</td>
</tr>
<tr>
<td>5</td>
<td>February 2</td>
<td>James P. DeLany, Ph.D.</td>
<td>Energy Expenditure and Metabolism</td>
</tr>
<tr>
<td>6</td>
<td>February 9</td>
<td>Hira Ali, M.D.</td>
<td>Diabetes Management</td>
</tr>
<tr>
<td>7</td>
<td>February 16</td>
<td>Rachel P. Kolko, Ph.D.</td>
<td>Perinatal Health Behaviors</td>
</tr>
<tr>
<td>8</td>
<td>February 23</td>
<td>Sarah T. Stahl, Ph.D.</td>
<td>Lifestyle &amp; Mental Health in Older Adults</td>
</tr>
<tr>
<td>9</td>
<td>March 2</td>
<td>Andrea Hergenroeder, Ph.D.</td>
<td>Musculoskeletal Health and Cognitive Function</td>
</tr>
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<td></td>
<td>March 9</td>
<td><strong>No class—Spring break</strong></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>March 16</td>
<td>Renee J. Rogers, Ph.D.</td>
<td>Lifestyle Behaviors and Bariatric Surgery</td>
</tr>
<tr>
<td>11</td>
<td>March 23</td>
<td>Dana H. Bovbjerg, Ph.D.</td>
<td>Stress and DNA Damage/Cancer</td>
</tr>
<tr>
<td>12</td>
<td>March 30</td>
<td>Elsa S. Strotmeyer, Ph.D.</td>
<td>Neuromuscular Function in Aging</td>
</tr>
<tr>
<td>13</td>
<td>April 6</td>
<td>Bethany Barone Gibbs, Ph.D.</td>
<td>Sedentary Behavior &amp; Cardiometabolic Health</td>
</tr>
<tr>
<td>14</td>
<td>April 13</td>
<td>Iva Miljkovic, M.D., Ph.D.</td>
<td>Lifestyle Behaviors and Body Fat Distribution</td>
</tr>
<tr>
<td>15</td>
<td>April 20</td>
<td>April J. Chambers, Ph.D.</td>
<td>Chronic Disease and Falls</td>
</tr>
<tr>
<td>16</td>
<td>April 27</td>
<td>Final paper due at 5:30 pm</td>
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* Schedule is subject to change due to presenter availability and/or instructor discretion.

Summary of weekly activities to be completed prior to each class:

- Read journal articles and review pre-lecture materials
• Take online quiz
• Submit 3 questions to group’s discussion board and participate in discussion
• Vote on 5 questions for group to ask during post-presentation discussion

## COURSE COMMUNICATION

- CourseWeb will be the primary source for all course-related communication: announcements, journal articles, discussion boards, etc.
- Announcements may be supplemented by messages sent by the instructor to the students’ Pitt e-mail addresses (i.e., xxxx@pitt.edu). As a result, it is the student’s responsibility to check their Pitt e-mail address regularly.
- Dr. Kline can best be reached via e-mail. To ensure a prompt reply, please include ‘HPA 3377’ in the subject line. Please allow up to 24 hours for a response.

## TEACHING SURVEY

Students in this class will be asked to complete a **Student Opinion of Teaching Survey**. Surveys will be sent via Pitt e-mail and appear on your CourseWeb landing page during the last three weeks of class meeting days. Your responses are anonymous. Please take time to thoughtfully respond; your feedback is important to me. [Read more](#) about **Student Opinion of Teaching Surveys**.

## ACADEMIC POLICIES

### University Policies:

**Academic Integrity**

Students in this course will be expected to comply with the [University of Pittsburgh's Policy on Academic Integrity](#). Any student suspected of violating this obligation for any reason during the semester will be required to participate in the procedural process, initiated at the instructor level, as outlined in the University Guidelines on Academic Integrity. This may include, but is not limited to, the confiscation of the examination of any individual suspected of violating University Policy. Furthermore, no student may bring any unauthorized materials to an exam, including dictionaries and programmable calculators.

**Disability Services**

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and [Disability Resources and Services (DRS)](#), 140 William Pitt Union, (412) 648-7890, [drsrecep@pitt.edu](mailto:drsrecep@pitt.edu), (412) 228-5347 for P3 ASL users, as early as possible in the term. DRS will verify your disability and determine reasonable accommodations for this course.

**Copyright Notice**

Course materials may be protected by copyright. United States copyright law, 17 USC section 101, et seq., in addition to University policy and procedures, prohibit unauthorized duplication or retransmission of course materials. See [Library of Congress Copyright Office](#) and the [University Copyright Policy](#).

**Statement on Classroom Recording:**
To ensure the free and open discussion of ideas, students may not record classroom lectures, discussion and/or activities without the advance written permission of the instructor, and any such recording properly approved in advance can be used solely for the student’s own private use.

Department of Health and Physical Activity Student Grievance Policy

If a student feels that they have been treated unfairly by the instructor with regard to their grade or other aspects of their course participation there are a series of steps that should be taken in an attempt to resolve this matter. These include the following:

1. The student should first inform the instructor of the course of the issue in an attempt to resolve this matter. If the course is taught by a Teaching Assistant, Graduate Student, or Part-Time instructor, their faculty supervisor should also be informed of this matter. The student should bring this issue to the attention of the instructor in a timely matter and should maintain a record of interactions that occurred with the instructor regarding the matter in question. The course instructor should take necessary steps to address the concern raised by the student in a timely matter and should maintain a record of the interactions that occurred with the student regarding this matter.

2. If, after reasonable attempts to resolve the matter, the matter is not resolved in a manner that is deemed to be acceptable to the student, the student retains the right to file a grievance. This grievance is to be filed with the Department Chair in the form of a written document that can be submitted via email or campus mail. This document should include the following:
   a. Student’s name
   b. Student contact information (email, address, telephone number)
   c. Information on the course for which the grievance applies (course title, course number, instructor name)
   d. A copy of the course syllabus that was provided to the student by the instructor
   e. Detailed description of the grievance and additional information the student feels is pertinent to this matter.

After receiving this information the Department Chair will inform the student if additional information is needed, as appropriate will discuss this matter with the student and the instructor, and will issue a decision in a timely manner.

3. If the student is not willing to accept the decision of the Department Chair, the student will be informed that they can request an additional review of this matter through the Office of the Dean of the School of Education. If the student decides to pursue this, the student should contact the Associate Dean for Student Affairs & Certification in the School of Education at the University of Pittsburgh.
Description: This final paper will allow students to reflect on a specific chronic disease/condition and how a lifestyle approach may play a role in the prevention, treatment, and/or management of the condition. Students may approach the paper from a clinical- or research-based perspective.

Topic choice: Students should choose one of the presentations that were given in this course and focus their paper on the chronic disease/condition in that presentation. Students are free to choose any topic, and multiple students will be able to choose the same topic. When choosing a presentation, it will be best to focus on a specific disease/condition that was discussed rather than discussing the broad topic—for instance, instead of choosing “Brain Health and Aging” (Dr. Erickson), one could focus on Alzheimer’s disease or dementia.

Paper format: The report should address the following 4 questions:

1. What is the chronic disease/condition (e.g., pathophysiology, risk factors, prevalence, primary treatment options)?
2. How might lifestyle behaviors (e.g., physical activity, dietary modification) affect this chronic disease/condition? In other words, what are the pathways or mechanisms through which lifestyle can impact this condition? Feel free to choose either physical activity, dietary modification, or weight loss in general as the “lifestyle behavior”.
3. What is the current evidence for this lifestyle behavior in the prevention, treatment, and/or management of this chronic disease/condition?
4. Based upon clinical or research focus:
   o Clinical: How would you recommend implementing lifestyle modifications for a patient with this chronic disease/condition? What special considerations would need to be taken into account? Are there any modifications that would need to be made for this condition in comparison to a healthy adult?
   o Research: What research needs to be conducted for us to have a better understanding of the role lifestyle behaviors may play in the prevention, treatment, and/or management of this chronic disease/condition? Are there critical gaps in the research literature?

Paper format: Double-spaced, Times New Roman 12-point font with 1” margins

Paper length (not including ‘References’ list): Minimum 1500 words (6 typed pages), Maximum 2500 words (10 typed pages)

References: 10-20 cited references are required. Papers included in this course may be used as references. Other acceptable references include peer-reviewed scientific papers as well as scholarly book chapters. Non-peer-reviewed online content (e.g., general websites) are not acceptable. Students may cite references according to their preference (e.g., APA, Chicago, Vancouver formats); however, this method must be consistent throughout the paper.

Due date: April 27, 2017 @ 5:30 pm

***** 3 BONUS POINTS if submitted by 8:00 am on April 26, 2017

Submission method: Paper should be submitted WITHOUT the student’s name on the cover page/header/footer (i.e., anonymously) via CourseWeb (submission link will be available mid-semester)
Description of chronic disease/condition (10 points)

- Is the condition properly specific (e.g., “dementia” instead of “brain health”)?
- What is the basic underlying pathophysiology?
- What are the main risk factors?
- What is the prevalence among adults?
- What are the primary treatment options?

Description of how lifestyle may impact the chronic disease/condition (10 points)

- What mechanism(s) underlie the effect of this lifestyle behavior on the chronic disease?

Evidence for lifestyle in the prevention/treatment/management of chronic disease (20 points)

- How successful has lifestyle modification been shown for the prevention, treatment, and/or management of this chronic disease? Keep in mind that research focusing on lifestyle in the prevention of this condition will be different than research focusing on lifestyle in the treatment or management of the condition.
- Has lifestyle been compared to primary treatments for this condition? If so, how does it fare?
- What are the advantages/disadvantages of using lifestyle behaviors in the prevention/treatment of this condition compared to primary or more traditional treatment options?

Clinical or research applications of lifestyle in context of chronic disease (20 points)

- Clinical:
  - How would you recommend implementing lifestyle modification for a patient with this disease?
  - What modifications would be necessary?
  - Would supplemental treatment likely be needed (e.g., medications)?
- Research:
  - What are important future research directions for us to gain a better understanding of the role of lifestyle in the prevention, treatment, and/or management of this condition?
  - What (if any) are the critical gaps in the research literature?

Grammar & paper formatting (10 points)

- Is the paper formatted as specified?
- Is grammar, punctuation, and spelling correct?

References (5 points)

- Are references cited correctly in the paper?
- Is there a ‘References’ page at the end of the paper? Is it organized appropriately?

Bonus points (3 points)

- Was the paper submitted before 8:00 am on April 26, 2017?