Date: November 29, 2012  
(Final)

To: Faculty and Students  
PHOL 519 Course, *Integrated approach to cardio-respiratory research*  
Spring Semester, 2013

From: Christopher G. Wilson, Course Director

Re: Topics and schedule for PHOL 519

Attached is the topic list and schedule for PHOL 519 (*Integrated Approach to Cardio-Respiratory Research*), which will be taught Tuesdays and Thursdays from 3:30–5:00 PM in E546 for Spring 2013.

The course will be conducted in the following way:

1. At the beginning of each session with a new faculty member, the instructor will give a brief (15–30 minute) overview of the topic.

2. One week before a set of lectures begins, the faculty member will provide the students with a list of papers related to the topic. From this list, the students will assigned/choose a paper to present/co-present during the class session. Faculty may also ask the students to choose a paper from the current literature. The faculty member will also provide a list of key issues that the presenting student should be sure to cover when presenting the paper.

3. During the classes, the assigned student will present one or more papers per scheduled class. The student is responsible for making sure that all key issues identified by the faculty member are covered. All students are expected to read the paper(s) before class and be prepared for active discussion.

4. Each faculty member will grade the performance of the students based on their class discussions. A standardized grading template will be provided.

5. The student’s grade in the class will be totally determined by the quality of their presentations and class discussions.
Tuesdays and Thursdays, 3:30–5:00 PM, E546

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Faculty</th>
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</thead>
<tbody>
<tr>
<td>Tu 1/15</td>
<td>Respiratory Skeletal &amp; Smooth Muscle</td>
<td>VanLunteren &amp; T. Nosek</td>
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<td>Th 1/17</td>
<td>Respiratory Skeletal &amp; Smooth Muscle</td>
<td>VanLunteren &amp; T. Nosek</td>
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<td>Tu 1/22</td>
<td>Respiratory Skeletal &amp; Smooth Muscle</td>
<td>VanLunteren &amp; T. Nosek</td>
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<td>Th 1/24</td>
<td>Membrane/Network properties in Resp. Rhythmogenesis</td>
<td>T. Dick</td>
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<tr>
<td>Tu 1/29</td>
<td>Ion Channels/Second Messengers/Resp. Rhythmogenesis</td>
<td>C. Wilson</td>
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<tr>
<td>Th 1/31</td>
<td>Ion Channels/Second Messengers/Resp. Rhythmogenesis</td>
<td>C. Wilson</td>
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<tr>
<td>Tu 2/5</td>
<td>Ion Channels/Second Messengers/Resp. Rhythmogenesis</td>
<td>C. Wilson/T. Dick</td>
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<tr>
<td>Th 2/7</td>
<td>Transmitters in the Regulation of Breathing</td>
<td>T. Dick</td>
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<tr>
<td>Tu 2/12</td>
<td>Transmitters in the Regulation of Breathing</td>
<td>T. Dick</td>
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<tr>
<td>Th 2/14</td>
<td>Respiratory Inflammation, Cytokines, &amp; Neutrophils</td>
<td>T. Kelley</td>
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<td>Tu 2/19</td>
<td>Respiratory Inflammation, Cytokines, &amp; Neutrophils</td>
<td>T. Kelley</td>
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<td>Th 2/21</td>
<td>Respiratory Inflammation, Cytokines, &amp; Neutrophils</td>
<td>T. Kelley</td>
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<tr>
<td>Tu 2/26</td>
<td>Development of the Lung</td>
<td>P. Kc</td>
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<tr>
<td>Th 2/28</td>
<td>Development of the Lung</td>
<td>P. Kc</td>
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<tr>
<td>Tu 3/5</td>
<td>Pulmonary Epithelial Cell Biology &amp; Surfactant</td>
<td>C. Cotton</td>
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<tr>
<td>Th 3/7</td>
<td>Pulmonary Epithelial Cell Biology &amp; Surfactant</td>
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<tr>
<td>Tu 3/19</td>
<td>Gas Exchange</td>
<td>P. MacFarlane</td>
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<tr>
<td>Th 3/21</td>
<td>Gas Exchange</td>
<td>P. MacFarlane</td>
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Tu 3/26  Breathing & Regulation of Breathing in Exercise       C. Wilson & T. Dick
Th 3/28  Breathing & Regulation of Breathing in Exercise       C. Wilson & T. Dick
Tu 4/2   Pulmonary Vascular Remodeling: Hypoxia                R. Schilz
Th 4/4   Pulmonary Vascular Development & Disease             R. Schilz
Tu 4/9   Pulmonary Vascular Development & Disease             R. Schilz
Th 4/11  Cardio-respiratory Transitions at Birth              R. Martin
Tu 4/16  Apnea of Prematurity                                 R. Martin
Th 4/18  Pulmonary Matrix Physiology                          M. Olman
Tu 4/23  Genetics and Pulmonary Disorders                    M. Drumm
Tu 4/23  Genetics and Pulmonary Disorders                    M. Drumm
Th 4/25  Genetics and Pulmonary Disorders                    M. Drumm