

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

<i>Date</i>	<i>Topic</i>	<i>Faculty</i>
Tu 1/15	Respiratory Skeletal & Smooth Muscle	VanLunteren & T. Nosek
Th 1/17	Respiratory Skeletal & Smooth Muscle	VanLunteren & T. Nosek
Tu 1/22	Respiratory Skeletal & Smooth Muscle	VanLunteren & T. Nosek
Th 1/24	Membrane/Network properties in Resp. Rhythmogenesis	T. Dick
Tu 1/29	Ion Channels/Second Messengers/Resp. Rhythmogenesis	C. Wilson
Th 1/31	Ion Channels/Second Messengers/Resp. Rhythmogenesis	C. Wilson
Tu 2/5	Ion Channels/Second Messengers/Resp. Rhythmogenesis	C. Wilson/T. Dick
Th 2/7	Transmitters in the Regulation of Breathing	T. Dick
Tu 2/12	Transmitters in the Regulation of Breathing	T. Dick
Th 2/14	Respiratory Inflammation, Cytokines, & Neutrophils	T. Kelley
Tu 2/19	Respiratory Inflammation, Cytokines, & Neutrophils	T. Kelley
Th 2/21	Respiratory Inflammation, Cytokines, & Neutrophils	T. Kelley
Tu 2/26	Development of the Lung	P. Kc
Th 2/28	Development of the Lung	P. Kc
Tu 3/5	Pulmonary Epithelial Cell Biology & Surfactant	C. Cotton
Th 3/7	Pulmonary Epithelial Cell Biology & Surfactant	C. Cotton
Tu 3/12	Pulmonary Epithelial Cell Biology & Surfactant	C. Cotton
Tu 3/19	Gas Exchange	P. MacFarlane
Th 3/21	Gas Exchange	P. MacFarlane

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