Lynchburg College Health Sciences Summer Camp for High School Students

The purpose of this intensive summer camp is to initiate and/or enhance high school students’ exposure to anatomy and physiology, including application of this information in a variety of health care professions. Students will actively engage in the use of physiology software to apply concepts to research-based, hands-on activities, observe the cadavers in the Hobbs-Sigler Science Center, and dissect anatomical structures. Instructor for the camp is Wendy Williamson PT DPT, Assistant Professor at Lynchburg College. Local health care professionals and representatives from Lynchburg College’s Doctor of Physical Therapy and Physician Assistant Medicine programs will serve as guest speakers. Students will have the opportunity to tour Lynchburg College’s Athletic Training, DPT, and PA Medicine facilities.

Contact: Dr. Wendy Williamson, PT DPT at williamson.k@lynchburg.edu, (434) 544-7909 (office), (434) 610-0075 (cell)

Cost for the non-residential program is $250.
Dates: July 16-July 20, 2018; July 30 -August 3, 2018
Monday – Friday, 9:30 am – 3:30 pm
Registration deadlines: July 2 for the week of July 16 and July 16 for the week of July 30
Enrollment limit: 12 students per week

Daily Schedule

**Monday**
- Introduction, guidelines for etiquette in the cadaver lab, safety and dissection procedures
- Overview of skeletal and muscular systems
- Identification of muscles on cadavers, part I
- Guest speaker, question and answer session
- Lunch
- Identification of muscles on cadavers, part II
- Introduction to iWORX physiology software
- Instruction and group work performing iWORX lab on Electromyography
- Experiential learning using Transcutaneous/Neuromuscular Electrical Stimulation units

**Tuesday**
- Overview of lung anatomy
- Observation of cadaver lungs, discussion of common lung pathology (emphysema, asthma, chronic bronchitis, lung cancer)
- Guest speaker, question and answer session
- Lunch
<table>
<thead>
<tr>
<th>Tour of Lynchburg College facilities</th>
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<tbody>
<tr>
<td>Introduction to lung volumes (spirometry)</td>
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<tr>
<td>Instruction and group work performing lab on lung volumes/spirometry</td>
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<td>Changes in breathing at rest and following exercise, Experiential learning with pulse oximetry</td>
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**Wednesday**

- Overview of heart anatomy, circulatory pathway through the heart
- Observation of cadaver hearts, Sheep heart dissection
- Guest speaker, question and answer session
- Lunch
- Instruction in assessment of blood pressure and pulse
- Overview of ECG, listening for heart sounds with stethoscopes
- Instruction and group work performing iWORX lab on ECG/pulse using a Stethoscope
- Experiential learning with synthetic blood typing kits, Crime mystery cases

**Thursday**

- Overview of eye and ear anatomy
- Sheep eye dissection
- Guest speaker, question and answer session
- Lunch
- Tour of Lynchburg College Graduate Health Sciences building
- Instruction and group work performing iWORX lab on visual vs. auditory vs. distracted visual stimuli (texting while driving simulation)

**Friday**

- Overview of brain and spinal cord anatomy
- Observation of cadaver neuroanatomy
- Guest speaker, question and answer session
- Lunch
- Instruction in eliciting deep tendon reflexes
- Instruction and group work performing iWORX lab involving deep tendon reflexes
- Final wrap-up

Please be aware that due to the complexities of scheduling multiple tours and guest speakers, as well as availability of health care practitioners, our daily schedule topics may need to be adjusted.