

Abstract Submitted
for the OSF15 Meeting of
The American Physical Society

Life Science Small Group Learning Lessons for Trigonometry Based General Physics¹ SAMANTHA SNELLING, Andrews University Department of Physics — The General Physics course at Andrews University has transitioned to a format that includes a Small Group Learning (SGL) problem solving period facilitated by Learning Assistants (LAs). Modeled in part after the University of Colorado Boulder’s LA Program[1] , this new format encourages active learning in problem-solving groups of three or four through discussion and synthesis. Motivated by the American Association of Medical Colleges and the large percentage of medical track students, the LA coordinator and lead professor have offered SGL lessons that show “how current medical knowledge is scientifically [and physically] justified”, facilitate “curiosity, skepticism, objectivity, and the use of scientific reasoning” in understanding biological processes and medical procedures, and encourage “the ability to synthesize information and collaborate across disciplines”. [2] This poster will include examples of topics they have used: ballistocardiographs, motion and energy of kinesin, velocity and pressure in blood vessels, diffusion, electrophoresis used in DNA testing, ultrasound, axon conduction and resistance, x-ray diffraction used for determining the shape of DNA, PET and MRI scans and nuclear medicine.

[1.] <http://laa.colorado.edu/>

[2.] American Association of Medical Colleges. AAMC-HHMI Committee. Scientific Foundations for Future Physicians. 2009.

¹Life Science Small Group Learning Lessons for Trigonometry Based General Physics

Samantha Snelling
Andrews University Department of Physics

Date submitted: 28 Sep 2015

Electronic form version 1.4