

The Vanderbilt University Biomedical Engineering Research Experiences for Teachers (RET)



Who? Middle Tennessee High School Science, Calculus, and Computer Science Teachers

When? June 5 - July 7, 2006

Where? Vanderbilt University School of Engineering

Goals: High School science, calculus, and computer science teachers will become active participants in curriculum design and biomedical engineering research.



What? The participants will be given a three day overview of the program and overviews of engineering as a whole, biomedical engineering in particular, and what it means to do both biomedical engineering and educational research. Teachers will then be introduced to the How People Learn framework and the Legacy Cycle method of instruction. Teachers will be trained in one of the nine modules that has already been developed and field-tested. This training will include doing the module just as a student in their classroom would and then reflecting back on how best to teach that material. Following this orientation, participants will spend eighteen days working with a biomedical engineer in his or her lab



on a research project designed for them as part of a team. Potential topics include medical imaging and intracellular engineering. The RET site program will conclude with each teacher designing a Legacy Cycle unit of instruction based on his or her research for implementation in their home classroom. Teachers will also be assisted in constructing appropriate pre-tests and post-tests for assessing the effectiveness of their newly designed curriculum.

Why? Teachers will have an opportunity to increase their own knowledge in their area of specialty as well as to learn more about the application of science through research in engineering.

Cost: None to the teacher. Teachers will be paid a stipend of \$4800 for full participation in the project. Equipment and supplies moneys are available to each teacher.



How to Apply: Complete the application and submit by March 15, 2006. Early applications are encouraged.

Questions? Contact program director, Dr. Stacy Klein, at the VaNTH ERC. She can be reached by e-mail at stacy.s.klein@vanderbilt.edu. Phone messages can be left at 322-6085.