2009-2010 Awards

Abbas, Hassan H.: Assistant Professor, Barnes, Robert W: Associate Professor, Davidson, James S: Associate Professor, etal: Civil Engineering: Incorporation of Physical Models and Sensors in Instruction and Recruitment

Abstract: The use of physical models and sensors will be incorporated in both laboratory and lecture instruction in two Civil Engineering courses and two Interdepartmental Engineering courses with high student enrollment at Auburn University. It is anticipated that this effort will result in an enhanced student learning experience and an enhanced instructor teaching effectiveness. If awarded, The Breeden grant will be used exclusively for purchasing instructional equipment and supplies. The instructional equipment will also be used for recruitment/outreach purposes, such as in E-DAY and TIGERs Camps.

Ashurst, William R.: Assistant Professor, Placek, Tim: Assistant Professor: Chemical Engineering: “Making It Real—Experimenting with Engineering Concepts in Everyday Life”

Abstract: Chemical engineering students are exposed to laboratory experiments so they may observe natural phenomena and utilize engineering principles. However, the current experiments involve large scale equipment with complex operating procedures that, from the students perspective, tend to obscure the very underlying phenomena and principles that are to be investigated. That is, “they cannot see the forest for the trees”. Based on our initial observations from attempts to create simplified engineering experiments from everyday items, the idea of “Making It Real” (MIR) experiments seems to generate enthusiasm and engineering interest from the students and provides the groundwork for lifelong learning.

Baker, Amia: Librarian II: Reference Department: Information Literacy Video

Abstract: The author proposes to create a video that can be used to introduce information literacy topics which will spark student interests and participation in library sessions. I would like to produce a video based on the ACRL Information Literacy Competency Standards about the use of keywords, synonyms and Boolean operators to create efficient and effective searches. My goals for the video are to introduce the topic to the students, compare and contrast how you search differently in library databases versus the Internet, and bring up points for discussion with the class.

Caldwell, Fred J.: Assistant Professor, Waguespack, R. Wayne: Assistant Professor: Clinical Sciences: Video Based Instruction Module Development for the Enhancement of Teaching Elective Equine Surgical Procedures to Veterinary Students

Abstract: The intent of this project is the creation of up to twelve video based instruction modules of elective equine surgical procedures. These modules will be used in the clinical phase of their training in the College of Veterinary Medicine program. During the brief period the students spend on the VMED 5601 Equine Surgery and Lameness rotation in their fourth year, it is impractical to expose them to all of the elective surgical procedures they would be expected to perform upon entry into equine practice.
The generation of these modules would enhance their clinical experience and make them better prepared upon completion of their veterinary education at Auburn University.

Callender, Aimee: Assistant Professor: Psychology: **Techniques to Improve Learning and Memory: A Laboratory-Based Study of Instructional Techniques**

Abstract: One of the goals of education is to provide students with a basic foundation of knowledge, however it is a challenge for students to learn and retain the information. The proposed project will directly compare two methods for improving learning and memory, repeated testing and multi-media encoding. These methods can be used by instructors in a classroom setting as well as by students during independent study.

Giustino, Cathleen M.: Associate Professor: History: **Teaching the History of the Cold War through the Digital Display of Art, Architecture and Design at the 1958 World’s Fair in Brussels**

Abstract: I am building a website for teaching the history of the Cold War through art, architecture and design at the 1958 World’s Fair in Brussels (EXPO’ 58). Through virtual technology, original documents, and rich images, the exhibitions installed in the American, Soviet, and Czechoslovak Pavilions will be recreated and explored. The website will be useful for teaching the history of modernism after World War II. It will show that the Cold War superpower rivalry was fought not only with threats of nuclear annihilation, spies, and rockets, but also with art, consumer goods, and promises of “the good life”.

Helms, Kristen: Clinical Associate Professor, etal: Pharmacy Practice: **Comparison of written and multiple choice assessment tools in a Problem-based Learning (PBL) Curriculum**

Abstract: The success of problem-based learning (PBL) in medical curricula appears to center more on the students’ abilities to solve problems and utilize resources than their efficiency of knowledge acquisition. Assessment of these skills for individual students is often difficult using the traditional and efficient multiple choice examination format. Written short-answer examinations may offer a better assessment method with the potential for diminished grading efficiency. This research will determine whether written examinations better meet the needs of the PBL learning style and whether continuation of this assessment style if feasible.

Henry, Raymond P.: Professor, etal: Biological Sciences: **Microsurgical Success Rate when Training with a Model Rat Versus Live Rat**

Abstract: Animal Physiology (BIOL 6240) and Mammalian Physiology (BIOL 6600) are upper level physiology courses with a laboratory portion that requires the experimental use of live animals. Several microsurgical skills are required for the experiments to be successful, and we currently have a training lab that allows the students to gain hands-on experience performing these techniques. Using the rat as a model, we divide 24 students into pairs and allow them to practice these techniques; they include: vessel cannulation, tracheotomies, and bladder cannulations. We are requesting funds to purchase 6 Microsurgical Developments PVC-Rats from Braintree Scientific, Inc., in order to assess the surgical
competence of students that use these new training models vs. the competence of those using the live models.

Hudson, Judith A.: Professor, etal: Clinical Sciences: The Use of 3D Engine Technology for Case-Based Teaching in the Veterinary Curriculum

Abstract: The objective of the project is to develop an educational and cost-effective tutorial for teaching case-based veterinary medicine using a 3-dimensional software engine. The tutorial will be built using the C4 engine developed by Eric Lengyel (Terathon Software) and commercially available models of characters and objects contained within a database. The tutorial will follow a role-playing game format in which students navigate within a virtual hospital interacting with animal patients and virtual veterinary equipment within a virtual hospital interacting with animal patients and virtual veterinary equipment and instruments. The project will enable instructors to offer students a safe environment in which to explore diagnostic options thereby reinforcing principles learned in didactic classes.

Hur, Jung Won: Assistant Professor, etal: Education Foundations, Leadership & Technology: Development of Online Learning Modules for Digital Citizenship Education

The purpose of this project is to create online learning modules focusing on digital citizenship and to explore methods of integrating those learning modules into a teacher education program. The modules will be rooted in case-based learning and integrated into EDMD 3300, Instructional Technology for Educators, to assist future teachers in understanding the safe, legal, and responsible use of information and technology. The effectiveness of the modules will be evaluated during the 2009 fall semester, and the results will be published in a journal.

Noe, Nancy W.: Librarian II: Reference & Instruction, Sidler, Michelle Ann: Associate Professor: English: ‘Train the Instructor’—Web Evaluation

Abstract: One of the stated outcomes of Auburn University’s general education curriculum is that students will be information literate. In an effort to provide a framework for information literacy (IL) within that curriculum, Auburn University Libraries and the Department of English worked collaboratively to scaffold IL learning objectives and opportunities into ENGL 1120 (English Composition II) classes. As English begins to revise ENGL 1100(Composition I), the Department and Libraries has proposed a ‘Train the Instructor’ project: embed a specific information literacy outcome into the sequence (website evaluation) and provide faculty with the necessary resources and training to ensure student learning.

Plexico, Laura: Assistant Professor, Phillips, Daniel: Assistant Professor, Moran, Michael: Professor: Communication Disorders: Using Virtual Clients to Enhance Teaching Effectiveness in Communication Disorders

Abstract: The Master’s program in Speech-Language Pathology requires that students obtain contact hours with clients in order to develop skills required for certification and state licensure. The
certification standards allow for clinical skills to be developed and demonstrated “by means other than direct client contact in clinical practicum experiences, such as...simulations...”. The purpose of this project is to pilot the development of video-based “virtual client” software for use with students in the speech-language pathology program. Two virtual clinical scenarios will be developed and then used as an instructional method to promote student critical thinking and clinical effectiveness with the intake interview process.

Simmons, Karla P.: Assistant Professor: Consumer Affairs: **Travel for Training on Apparel Specific Software, Gerber Technology, Accumark**

Abstract: This teaching project will support the training for appeal specific software from Gerber Technology (GT). The Accumark software system houses technology for pattern making and design, grading, and marker making. As the main departmental instructor of this technology, I am in need of this training update to instruct the CAHS students in the total product development process.

Zanzot, Jocelyn: Assistant Professor, Davis, Mathew: Assistant Professor: **Landscape Architecture: Summer Workshop Series: Videography for Designers**

Abstract: The Breeden Grant will fund an intensive summer workshop series: Digital Videography for Designers led by Professor Davis, at Philadelphia University, a recognized expert in the field. In conjunction with AU Professor Zanzot’s seminar on the topic, this workshop is designed to enhance both teaching and learning capacity in the School of Architecture. Digital video is an important tool in the research and design of public urban space, yet is currently not offered to AU students. The funding will also support a graduate student to construct a website and video archive-enabling virtual dialogue and continued advancement of this medium.