Awards and Recognition, Iowa Academy of Science, 2003
AWARDS AND RECOGNITION
IOWA ACADEMY OF SCIENCE
2003

DISTINGUISHED IOWA SCIENCE TEACHING

Jerry Honts

Dr. Honts came to Drake University in the fall of 1995 after a nationwide search to fill a Cell and Molecular Biology position, in which he stood out among over 100 highly qualified candidates. At the time, the department was impressed by his obvious skill and interest in research, but even more intrigued by his seeming passion for teaching undergraduate students. Our faith in this early evaluation has been more than justified in the years since hiring him. He has developed and offered an almost unbelievable eleven new courses in the relatively short time at Drake. These include offerings not only in the basic sciences, (Cell biology, Molecular biology, Structural biology) but also courses in Evolution of Life on Earth, Life in the Universe, Biological Computing, and the senior capstone course which seeks to tie all of biology together through evolutionary threads.

Dr. Honts has been our foremost advocate and practitioner of inquiry-based learning. He incorporates it into all aspects of his teaching, lectures, discussions sessions and the laboratory. Students love his classes. They get caught up in his enthusiasm for science and respect his intellectual rigor. And he still manages to do it all with gentile humor.

One student wrote:

“He transformed an unfamiliar world of cellular knowledge into a fascinating and relevant field of biology not only for me but for all of us. He sparked our interests and enhanced our ability to grasp difficult concepts by relating them to current discoveries and by utilizing all available technological resources. His greatest accomplishment as a professor lies in the vivid communication of his love for science, and his ability to bring out the scientist in every one of his students.”

Another wrote:

“I challenge you to find anyone who is more enthusiastic and knowledgeable about cell biology than Dr. Honts. He is a treasure, an irreplaceable professor here at Drake. It is impossible not to feel some of that enthusiasm, which never seems to lessen as the semesters go on. During the year that I had Dr. Honts as a professor I found, to my surprise, that my own passion for biology, and drive to learn, expanded immensely.”

Still another wrote:

“Dr. Hunt’s laboratory and discussion sessions do more than simply reinforce lecture material, but are entire classes in themselves. The laboratory class culminated in a final research project in which students paired up and spent the final four weeks of the semester gathering data, analyzing the results and then making a presentation to the class. We were constantly challenged to apply critical thinking and problem-solving skills, as well as gaining a small glimpse of the time and commitment that may be involved in research activities.”

Here is another glimpse of Jerry. Once I happened to mention to him that I had heard about a new potassium channel that had just been identified. Over the next several days, reprints of articles concerning this channel kept popping up in my mailbox. No indication as to who supplied them. I found out later it was Jerry. I subse-

quenty learned later that most of the department members had been so treated when they mentioned something new in their fields to Jerry. It makes no difference what your area of interest is, he reads everything.

I’ll close with a quote from one of his colleagues in the biology department who said: “I have personally been in his classroom as an observer and watched his teaching techniques. I have personally been in his laboratory and watched his mentoring techniques. He is skilled. He is patient. He demands rigor, and he receives respect and praise for his efforts. In short, He is a gem.”

EXCELLENCE IN SCIENCE TEACHING AWARD
ENVIRONMENTAL SCIENCE

Chris Robinson

Mr. Robinson believes deeply in an overarching mission of the professional science teacher to act outward beyond the lab-room walls to share expertise and lead the way for science education evolution. At Washington High School in Cedar Rapids, he has engaged in leadership through participation in science teaching organizations at all levels, promoting excellence through research and dissemination of his own practices. A common characteristic of exemplary teachers, embodied by Mr. Robinson, is the circular relationship between professional networking and classroom advancement.

In the classroom, Mr. Robinson emphasizes the skills that lead to productive citizens—skills of inquiry and problem solving. His devotion to the art and craft of effective teaching might best be gauged by monitoring the faculty parking lot—His car is there when others arrive and is still there when they depart. High personal expectations spill into his expectations of students as well, who grapple with heady issues of the day that require a merger of strong conceptual understanding and the skills to make a difference. There is little risk that Chris’ students outwork him, though a high bar and strong support inspire them to strive.

EXCELLENCE IN SCIENCE TEACHING
LIFE SCIENCES

Starla Pottorff

Starla Pottorff’s business world experience provides a basis for her practical, technological approach to science teaching. Topics of exploration have meaning far beyond a book chapter or the next exam. As the entire “biology department” at her school, Ms. Pottorff recognizes her immense responsibility to convey life science as a timely and exciting discipline with implications personal to each student. Numerous professional development opportunities in technology, biotechnology, and bioethics get immediate application to her classes at Corning High School in Corning, Iowa.

In the classroom, Ms. Pottorff emphasizes the authentic knowledge and skills that learners will need for becoming valued contributors to society. She assesses their progress in a variety of ways, using results as a feedback mechanism for her teaching. Ms. Pottorff prioritizes the establishment of a caring community for learning as foundational to the pursuit of knowledge, and she embraces the concept that knowledge itself comes about through a team approach to
EXCELLENCE IN SCIENCE TEACHING AWARD
ELEMENTARY SCIENCE
Matt Robie
Matt Robie is ahead of the curve in advancing an inquiry approach to science teaching in his classroom at North Polk Elementary School in Alleman, largely due to his personal commitment to excellence. He is a model of life-long learning for his students, not slowing down a step since college graduation. He is involved in a science consortium for which he has developed resource guides for other science teachers and co-chairs his district’s K-12 Science Curriculum Committee. Mr. Robie is active in disseminating innovative ideas in technology integration for science learning. Matt Robie is one of Iowa’s up-and-coming science education leaders.

In the classroom, Mr. Robie combines high support and high expectations for both himself and his students. Active learning, which places a premium on instructional creativity and flexibility, elevates the science experience for his fortunate students. A mark of excellent teachers is risk-taking, and Mr. Robie pushes the envelope—stinking up a lesson (and his entire school...from a hog gut experiment) or more often smelling like a rose. His curriculum is technologically infused and intrigue-imbued.

DISTINGUISHED SERVICE AWARD
Iowa Children’s Water Festival
The Iowa Children’s Water Festival is held annually in May at the Des Moines Area Community College (DMACC) campus in Ankeny, Iowa. This festival provides a one-day, free venue for approximately 2000 fifth grade students and their teachers, from across Iowa, to engage in an interactive, fun, educational experience about water, water resources, and related topics.

The timeframe to engage citizens about natural resource education is when they’re young, enthusiastic, and eager to learn. It’s important that Iowa’s citizens become educated regarding water because the 21st century will bring important choices for our residents regarding the future of our State’s water resources. Learning about Iowa’s water resources gives students a sense of place, pride, value, and ownership. During the festival, various aspects of water-resource related topics are taught through presentations, hands-on experiments, exhibits, games, and entertainment. This ambitious event cannot happen without the support and assistance of many dedicated professionals and volunteers who are committed to using our most precious natural resource wisely.

EXCELLENCE IN SCIENCE TEACHING AWARD
PHYSICAL SCIENCE
Nicole Scott
Nicole Scott maximizes the institutional resources for professional development by seizing every opportunity for growth at Iowa City High School—from district science committee roles to outreach leadership to summer research projects. A generous learner, Ms. Scott shares the accumulated intellectual wealth not only as a teacher but also as a science community leader. The example she sets for students as a curious and responsible professional is a lesson for which we all benefit. Ms. Scott is a rare science teacher who balances and intertwines the interests and needs of individuals within classes with her broader call to shape the science experience of the community.

In the classroom, Ms. Scott anchors her practices to a research basis for how it is that her students learn. This equates to a strong undercurrent of relevancy, a variety of learning tasks to examine big ideas, and the flexibility to accommodate variations in pace and interest. Students are appropriately center stage, designing tasks, assessments, and reflecting upon their own performance. By year’s end, her physics students have turned the abstraction of physics to a rollercoaster; her chemistry students have built stoichiometry into a soap dynasty, and all of her students have made best use of their newfound science knowledge: the solving of real world problems.