

## *Staff Employee of the Week*

### **Lawrence Sewell**

For more than 20 years, **Lawrence Sewell** has served as a valuable member of the [Computing Center](#) staff, but Lawrence's seminal contribution to Virginia Tech was the design and construction of the [Math Emporium's](#) core services systems.

"Lawrence's technical expertise, his innovative approach to problem-solving, and his acute attention to detail have been invaluable to our daily operations," said Terri A. Bourdon, senior mathematics instructor and Math Emporium manager. "In addition, the frequent interest in our model of instruction and facility management by universities all over the country is largely attributable to Lawrence's work."

A project of this scale would normally involve a team of four to six engineers, analysts and programmers. However, operating only from a high-level set of requirements for the test system (e.g., extreme scalability, user-friendly browser interface, sub-second response time, full access to history), Sewell, independently and solely, designed and built the Math Emporium core server system.

The system was able to run on small, outdated computers with performance levels well beyond expectations given the age of the equipment.

"In 2010 when Virginia Tech was faced with student usage patterns that threatened to overwhelm the decade-old system, Sewell introduced a new practice problem feature that restored the system's efficiency," said Peter Haskell, professor and department chair.

Years after original development, Sewell's system continues to demonstrate its flexibility by incorporating new software to deliver significant improvements in performance to meet increased demands and offer more features.

"We rely on Lawrence and the systems he has developed to provide the personal feedback our students and faculty expect in a math class, regardless of size," said Bourdon. "On the rare occasions that problems arise, he is always willing to investigate, both during and outside regular working hours, and is satisfied only when a complete solution has been realized. His desire to expand his knowledge to include current trends in educational technologies has contributed to the development of several new resources for our courses and those who teach



them."

"Lawrence's accomplishment was and is unique," said Michael Williams, associate professor of mathematics emeritus and former director of the Math Emporium. "Even today we are unaware of a single comparably featured system. Without Lawrence's contributions, the Math Emporium would not exist.