Emeritus Prof Honored for Life’s Work

Retired mathematics education professor Jacqueline Voyles considers herself lucky to have been able to observe and participate in the evolution of mathematics teaching over the past 44 years. Because of her dedication to improving mathematics teaching and curriculum over the years, she received the 2011 Don Clark Award for a Lifetime of Achievement and Excellence in Mathematics Education from the Utah Council of Teachers of Mathematics.

Voyles, now an emeritus teaching professor, taught mathematics and mathematics education for 44 years, 33 years of which were at BYU. She has taught all ages, from sixth graders to college graduates. Though curriculum and teaching styles change, Voyles has always had one goal in mind: to create and use a teaching environment and curriculum that will help students truly understand math.

“From being on the founding faculty of a middle school, to co-founding and developing the BYU Math Lab, to participating in the creation of the Mathematics Education Department at BYU — I have ended up in circumstances that provided lots of freedom to develop programs, choose and develop curriculum, and to experiment with teaching,” Voyles said.

Voyles always tried to take advantage of opportunities to help students and future teachers understand the importance of mathematics.

“In all of these situations, it seemed that opportunities to experiment and create just kept falling out of the sky, and I had the choice to do something about it or trip over it. I feel very...
Robin Roundy Inducted as INFORMS Fellow

In November 2011, BYU mathematics professor Robin Roundy was inducted as a fellow in the Institute for Operations Research and the Management Sciences (INFORMS). The institute inducted Roundy for his research accomplishments in operations research and management sciences.

INFORMS is a distinguished operations research society devoted to applying scientific methods to advance operations and management functions. This area of study focuses on applying advanced analytical methods and mathematics to help organizations make beneficial decisions.

Roundy was specifically recognized for his innovative research in supply chain optimization and for his teaching and contributions to the field of operations research.

“It’s a very nice thing,” Roundy said. “In addition to being a nice thing, it opens doors for you and makes it easier to accomplish things that you want to accomplish.”

Roundy’s research has focused on supply chains and converting raw materials into finished goods. He has addressed such areas as forecasting demand, planning production, transporting materials and sequencing manufacturing operations in factories.

Roundy’s excitement for operations research revolves around his ability to see real-life applications of mathematics to the business community. Even though operations research is a relatively new field, its influence continues to expand.

By becoming a fellow with INFORMS, Roundy will positively impact the Mathematics Department and its scope. “Whether this has a big impact on the math department, it will certainly increase the visibility of the Math Department,” Roundy said. “It will increase the profile of the Math Department in the INFORMS community.”

Roundy graduated from BYU with both a bachelor’s and a master’s degree in mathematics. He later earned his PhD in operations research at Stanford University, before becoming a professor at Cornell University. Roundy also served as a mission president before coming to BYU.

He is teaching optimization and linear algebra classes during the winter semester, while continuing his research.

“This career has given me the opportunity to do a lot of things that I really enjoy. I love research,” Roundy said. “I love working with students in different contexts — both teaching and working with students on research. I also really enjoy working with companies, and this has given me the opportunity to do all of those things.”

by: Chris Scheitinger

Life’s Work continued from page 1

blessed to have been given so many chances to start from scratch — to think with my colleagues about what the end product of the learning should look like and then put our best ideas to work.”

Voyles loves teaching all ages, but she especially enjoyed teaching mathematics education majors in the course just before they enter into their classroom practicum.

“I really enjoyed them — watching them put the math and the math education together in a package so they can go into the schools and student teach the very next semester.”

Along with a passion for teaching, Voyles deeply loves mathematics. She believes math is a gateway to many interesting opportunities.

“Math opens doors to many choices of studies and careers,” she said. “This knowledge provides a solid foundation for learning in other fields.”

The award Voyles received is named for her friend and colleague, Don Clark, who played an important role in mathematics education in Utah for many years. Voyles feels grateful to have received such a prestigious award from her peers. The award reminded her that all the time and effort she put into helping students and future teachers has made a difference in some lives.

by: Jenny Spencer

Correction

In the last edition of the newsletter, the article “Geology Breaks New Ground in Nauvoo” was incorrectly attributed. The author should have been listed as Jenny Spencer.
Rediscovering Provo’s First Tabernacle

Did you know the history of the Provo Tabernacle goes deeper than the burnt ruins above the surface? In order to analyze the land surrounding the Provo Tabernacle, professors John McBride and Bill Keach, along with students from BYU’s Department of Geological Sciences, have partnered with Emily Utt and Benjamin Pykles, historic sites curators in the Church History Department of The Church of Jesus Christ of Latter-day Saints.

Utt began documenting the tabernacle and its surviving architecture shortly after the fire in December 2010. She is currently investigating the history of the tabernacle site in order to understand the possibilities and problems surrounding the development of the new temple.

While researching the site, Utt discovered that an earlier tabernacle once existed near the current tabernacle. The old tabernacle, which was designed by the same architect as the Salt Lake Temple, was torn down in the early 1900s, and its exact location was unknown. Determination of the exact location and architectural remains of the old tabernacle will provide valuable information while engineering and designing the foundation and developing the construction site of the future temple.

“’I’m most excited for how much we’ve learned about the [Provo Tabernacle] and this site that we didn’t know before,” Utt said. “We know more about this [old] tabernacle now than anyone has known in the last 100 years.”

Using Ground Penetrating Radar (GPR), professors McBride and Keach are currently investigating where the old tabernacle was built in comparison to the remains of the current Provo Tabernacle. The GPR instrument is installed on a three-wheeled cart and acts as an antenna and receiver.

The GPR equipment sends electromagnetic waves into the ground, which reflect off the different layers and materials in the earth. GPR essentially allows you to see into the ground without digging into it.

“Our contribution is to actually show where [the old tabernacle] really is,” McBride said. “It was challenging because the ground was kind of wet, and radar doesn’t work very well with wet ground. Nevertheless, it actually did work very well so that was kind of a surprise.”

The BYU Office of Public Archaeology has also been on-site, excavating and mapping portions of the old tabernacle’s foundation. The limited excavations have confirmed what historical documents and the GPR survey indicated — that the old tabernacle’s buried stone foundations are 4 feet wide and up to 5.5 feet high. Once the GPR data processing is complete, a final map will be produced, and Utt and Pykles will present it to Church headquarters.

“Our job is to report what we find, and then hopefully, we can weigh-in on what we think can happen to this place,” Pykles said.

A big sycamore tree currently stands over the area where the old tabernacle’s tower once existed.

“It’s pretty amazing that people have been walking over this area and picnicking here and doing all sorts of things here and not understanding or knowing that they’re standing on the remains of a one-hundred-and-fifty-year-old tabernacle,” Pykles said.

Seamons on Reprogramming Future Security

Hackers. Every time you check your email, Google something or pay tuition, they are out there. But you probably would never expect them to be gathering on BYU campus, as well.

Department of Computer Science professor Kent Seamons advises the BYU hacking team, a group of students studying Internet security to help defend against hackers. The team recently won a national competition, and BYU Broadcasting’s show, “Thinking Aloud,” interviewed Seamons about the typical hacker profile. He describes the safest passwords, new innovations in Internet security and computer science ethics taught at BYU.

To listen to the interview online, visit classical89.org and enter “Seamons” in the search bar.
**Service, Citizenship and Teaching continued from page 1**

Lamb pioneered the use of a variety of software tools in the classroom. “John is a model of lifelong learning and broad interests,” said Sommerfeldt. “This is amply evident in his teaching and student interactions.” Lamb has also held various leadership positions on campus since 1985, including director of research administration, executive director of research and creative work, and associate dean for general education.

The second faculty recipient of an Outstanding Teaching Award (<10 years) was Ken Rodham, from the Department of Computer Science. After seven years in Silicon Valley working on Internet applications and technologies, Rodham began working at BYU. Since 2002, he has trained students as they developed strong software engineering skills, using his prior experience in the field of computer science.

Finally, Wesley Lifferth, a machinist/design engineer from the Department of Physics and Astronomy won the college recognition award for Outstanding Staff/Administrative Employee. Lifferth is called on to invent new tools, modify existing ones, manufacture small precision-machined parts and an array of other tasks. His contributions to the department have been innumerable.

Overall, the night was a memorable way to recognize the dedication and hard work of CPMS faculty and staff.

**by: Alysa Haskin**

---

**College Publications**

**Chemistry and Biochemistry**


**Computer Science**


C. Christiansen, W. Barrett, “Removing the Noise from Cemetery Headstones”, Family History Technology Workshop 2012 (FHTW2012@Rootstech), 2012, pp. 66-71


D. Kennard, W. Barrett, T. Sederberg, “Handwriting Recognition (HR) of Family History Documents using a 2-D Warping-Based Word-Level HR Approach”, Fam-
ily History Technology Workshop 2012 (FHTW2012@Rootstech), 2012, pp. 50-53


Geological Sciences


Mathematics


Statistics

