

JMU again named a 'Best Value'

JMU is again one of the top 75 public undergraduate colleges and universities identified by The Princeton Review in its annual "best value" guide. JMU also ranks No. 22 in the 2014 *Kiplinger's Personal Finance's* top 100 Best Values in Public Colleges.



The 2014 edition of The Princeton Review's *The Best Value Colleges: The 150 Best-Buy Schools and What It Takes to Get In*

lists JMU among top colleges and universities based on excellent academics, financial aid and cost of attendance. JMU has been listed in the Princeton Review's "best value colleges" books since 2009. "James Madison University ranked No. 22 in the top 100 colleges thanks to its high four-year graduation rate, low average student debt at graduation, abundant financial aid, a low sticker price, and overall great value," according to a news release distributed by Kiplinger's. Data was collected from nearly 600 public schools to determine the 100 best values.



et al.: A healthy move

The rocket science of aeroacoustics

Math professor has a blast with NASA collaboration

When a rocket blasted off Sept. 17 on a flight to the International Space Station, JMU mathematics professor Caroline Lubert was among guests invited to watch. While Lubert was excited by the spectacle of a rocket launch — from Wallops Island on Virginia's Eastern Shore — she was equally interested in the thundering sounds the liftoff produced and the sound data that was captured by 70 highly sensitive microphones placed in the vicinity of the launch pad.

Since 2012, Lubert has collaborated with NASA and Orbital Sciences Corp., the company that built the Antares rocket for the mission, investigating the earth-shaking acoustical vibrations from rocket launches. She is particularly interested in the sounds that come out of a J-shaped trench that channels the rocket exhaust away from the launch pad during liftoff.



Caroline Lubert has collaborated with NASA to investigate earth-shaking acoustical vibrations from rocket launches.

"I'm interested in how the flow behaves in this duct and whether it shows any of the properties I would expect from the Coanda effect," says Lubert, who helped oil companies reduce noise

levels at their refineries and rigs while doing her doctoral research in the 1980s. The noise reduction was achieved by creating a saw-toothed nozzle for flares used to burn off excess gas. The jagged nozzle edges changed the frequency of the sound, thus making them less disturbing to human ears.

Lubert expects to use the data from the launches to identify peak noise sources and suggest improvements to the design of the flame trench. A key concern for rockets is vibration. The less vibration, the better for the rocket, its payload and, on manned flights, for the astronauts.

Lubert says she hopes to build a model of the J-trench for testing in her anechoic chamber, a soundproof room about the size of a shipping container in her Burruss Hall lab. Then she can test different curvatures and different duct lengths to see what effect they have on the aeroacoustics. **M**

→ **CONTACT** professor Lubert at www.math.jmu.edu/~smithc or read more of Eric Gorton's story at www.jmu.edu/news/2013/10/23-caroline-lubert-acoustics-research.shtml

A healthy move

The University Health Center became the first tenant of the new Student Success Center during spring break. The new health center includes appointment and walk-in medical clinics for allergy, international travel, specialty and women's health. It also offers services for health education, contraception, LGBT and ally education; limited pharmacy dispensing; nutritional counseling, outreach, peer education, sexual assault education, and substance abuse prevention. The expanded University Health Center features 37 exam rooms, eight procedure rooms, six observation beds, offices, meet-

ing rooms, and additional space for future optometry, physical therapy, radiology and pharmacy services.

Occupying the former Rockingham Memorial Hospital, the Student Success Center will be a collaborative and high-impact learning environment for students and a hub of programs and services promoting student learning and development through accessibility, innovation and interaction with others. It will be one of the largest and most comprehensive college facilities of its kind in the country. As part of JMU's continued focus on environmental sustainability, the design and construc-



The University Health Center is the first tenant of the new Student Success Center, located on the site of the old Rockingham Memorial Hospital. The center is a hub for student programs and services.

tion of the Student Success Center has focused on being green with the use of recycled materials, water collection features, energy saving options, and

will seek LEED Gold Certification upon opening. Read more on Page 24. **M**

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