

Oregon Daily Emerald

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Tuesday, July 20, 2004

SINCE 1900 UNIVERSITY OF OREGON EUGENE, OREGON

Volume 106, Issue 9



John Moseley
Senior vice
president and
provost

Higher Ed board proposes 2005-07 budget

A 3.6 percent tuition increase will be in line with median family income

OMIE DRAWHORN
NEWS REPORTER

The Oregon State Board of Higher Education has proposed a \$710 million budget that increases tuition for students by 3.6 percent, a rate the board hopes will keep higher

education "accessible and affordable" for the 2005-07 biennium.

The budget represents a 6.4 percent increase from the 2003-05 budget of \$667 million.

University Senior Vice President and Provost John Moseley said the budget represents the amounts necessary to maintain funding for programs into the next biennium, while accommodating unavoidable increases.

Oregon University System spokeswoman Di Saunders called the budget "more student-focused," adding that it would improve access, affordability and quality.

Don Blair, chair of the Finance/Budget/Audit/Personnel/Real Estate Committee, said the Board's criteria for drafting the budget included making degrees more readily achievable, investing directly in creating ties to workforce demands and investing directly in "knowledge creation."

"Affordability and access are guide-words for this board," Saunders said. "All concepts revolve around these ideas."

Some board members proposed a 5 percent tuition increase. Saunders said board member Tim Nesbitt suggested instead raising tuition 3.6 percent — the percentage increase in median family income projected over the same period — to make higher education more affordable.

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OREGON SCIENCE

Physics professor Michael Raymer and associate chemistry professor Andrew Marcus demonstrate a laser used in their research to explore molecular reactions. The University recently received a total of \$1.1 million as part of a grant to study the interactions between light and matter.

Lauren Wimer
Freelance
Photographer



Tools of the trade

Oregon's new Laboratory for Quantum Control will further atomic research and enable 'internationally competitive' experiments

BEN BROWN
NEWS REPORTER

The Oregon Center for Optics (OCO) is building and equipping a new lab on campus that will allow University researchers to probe and control the behavior of atoms.

A \$510,500 grant from the M. J. Murdock Charitable Trust, combined with \$600,000 from the University, will fund the building of the new Laboratory for Quantum Control, the first of its kind in Oregon.

The lab's centerpiece will be two state-of-the-art laser systems, which will help University researchers study the dynamics and structure of light and matter. These lasers will control atoms with light pulses as short as 10 femtoseconds, or exactly one hundredth of a millionth of a millionth of a second.

Physics professor Michael Raymer said this money will give researchers a lab that is both quiet and temperature-controlled, allowing them to carry out experiments on semiconductors and nanometer-thin films on an "internationally competitive" level. University researchers hope to use the

insights gained from molecular research to create computers with increased capability, better fiber optic communications, greater control of chemical reactions, and even create new forms of electronics.

"It's absolutely clear that basic discovery now leads directly to new technologies," Raymer said in a press release. "The cutting-edge science that is going on now will lead to inventions we can't even imagine."

Associate professor of physical chemistry Andrew Marcus said Moore's Law, which states that the capacity of computer chips doubles every 18 months, makes this research important to the computer industry. At that rate, in 20 years the wires on microchips will be a single molecule wide, but researchers don't currently know how electronics function on that scale. They are sure that miniaturizing current technologies will not work, however.

"All the rules change as we enter the quantum level," said Marcus. "We're discovering whole new ways to think about information."

Marcus said the lab's fixed temperature is essential to research, because lasers have to

be focused to a minuscule beam width, often as small as a single molecule, and left for hours. The slightest temperature variation could shift a mirror and cause the laser to lose focus, costing researchers hours of work.

Noise control is also important, because the signals given off by the molecule are so weak that almost any noise could drown them out. To compensate, the new lab will be sited in the basement of one of the science buildings and will have an independent ventilation and cooling system that will maintain constant temperature within one half of one degree Fahrenheit, Marcus said.

Raymer said the lab will also function as a good place for physicists and chemists to work together in a joint research laboratory, allowing for greater collaboration between the departments and a broader education for the students working in the lab.

The M. J. Murdock Charitable Trust was created by the will of the late Melvin J. Murdock, who co-founded Tektronix Inc.

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KWVA radio budget request faces scrutiny

The ASUO Student Senate Thursday approved the group's seven transfer requests and one by the Women's Center

MEGHANN M. CUNIFF
FREELANCE REPORTER

The ASUO Student Senate approved special requests from campus radio station KWVA and the ASUO Women's Center, but not without serious debate over the legitimacy and necessity of a number of requests.

KWVA made seven transfer requests, totaling \$1,634, to cover equipment repairs, purchases and other miscellaneous costs.

KWVA General Manager Charlotte Nisser said the transfers were "fiscally responsible," because they would allow the station to put all allocated funds to use. "KWVA is a very fiscally responsible organization. That's why we're here tonight — because it's necessary that we maintain that fiscal responsibility and make these transfers," Nisser said.

Requested transfers included \$289 from the Telecom account and \$679 from the programs director stipend into the equipment account to cover the costs of a dual cassette deck and a closed-circuit television system.

The money earmarked for the director stipend was available because last year's programs director was not a student and was therefore not entitled to a salary, Nisser said.

Purchasing the equipment in the past fiscal year rather than this fiscal year may not have been necessary, Nisser said, but was sensible. The cassette deck was purchased for the third studio, built earlier this year, and the television system was bought to protect equipment and combat theft and in-studio alcohol consumption.

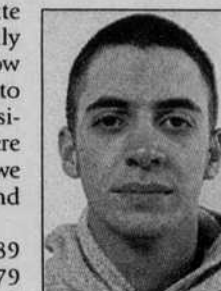
"The term 'necessary' is variable there. It's what you want to put on it," Nisser said.

Senator Kevin Day expressed concern over making unnecessary purchases, rather than letting the money go back to students via the Senate surplus. "If it's not necessary or vital to have, I think students also would like to save some bucks," he said.

"It just made the fiscal sense to do it out of 03-04 because those funds were there," Nisser said.

Other concerns centered around the timing of the requests, which were made after the equipment had already been purchased. Senator Toby Hill-Meyer said the Senate was in "an interesting situation," because the purchases had been made prior to the transfer requests, making it seem as though the transfers have to be made to save the group from a deficit.

Nisser said that KWVA has fund raising that can be used to cover the costs should the requests not be granted, but because there are other funds that could be used, "It would



Kevin Day
ASUO Senator

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