

Science departments offer non-major theory courses

The University provides a number of physics, biology and chemistry courses with interdisciplinary value

BY EVA SYLWESTER
NEWS REPORTER

University students do not have to be science majors to take advantage of the University's programs in biology, chemistry and physics. All three of these science departments offer entry-level classes open to students of all majors.

"This is science literacy mostly. All the classes we teach at this level are science literacy," physics professor Steve Kevan said.

The University requires that all bachelor of arts, science, and fine arts degrees include a minimum of 15 science credits.

Senior English major Gillian Barlow said she is taking Biology 122, Introduction to Human Genetics, to fulfill the science requirement.

"What's more interesting than the actual mechanics of genetics to me is the ethical and practical implications of genetics," Barlow said. "I'm glad this class integrates that."

Kevan said he finds the University's science requirement to be relevant.

"Why should someone who's not majoring in history want to know about history?" Kevan said.

"They're both important."

Kevan is teaching the Essentials of Physics classes (PHYS 101, 102, 103) this year. The classes do not have to be taken in sequential order.

"These are conceptual courses," Kevan said. "It's like 'Bill Nye the Science Guy' of physics."

Kevan said although the class uses almost no math, it does sometimes require small amounts of arithmetic and algebra.

"We tend to get a lot of math phobes in this class," Kevan said.

Julie Haack, assistant chemistry department head and senior instructor, will teach Chemistry 111, Introduction to Chemical Principles, spring term. While this class is a prerequisite for major-level biology classes, it also meets general education requirements and is open to non-majors.

"Chemistry is really what we call a central science, and it impacts a lot of other fields," Haack said. "Everything around us is a chemical."

Haack said students from various disciplines are able to integrate knowledge of chemistry with their majors.

"They might get a unique idea for something to do or invent something different," she said.

Some students use this interdisciplinary approach to add the natural sciences to their academic goals.

"I'm interested in sustainable business," junior business major Taylor Gordon said on his way out of Physics 162, Solar and Other Renewable Energies. "I thought getting a better handle on the physics of sustainable energy products would give me a better idea of the business climate."

Kevan said it's rare for students to become science majors after taking basic science classes.

"Generally we get students who are interested in science, but not interested enough to take the plunge," he said.

Haack estimated that out of every 100 students, only two come out of Chemistry 111 with the reaction, "Oh wow, I had no idea this was what I wanted to do with my life." She said a far more common response is, "I had no idea chemistry was so accessible."

"It's kind of like opening the door and giving them a toolbox and saying, 'Look at all the cool stuff you can do,'" Haack said.

evasywest@dailyemerald.com

IN BRIEF

Senate Democrats push for higher-ed spending

SALEM — Emboldened by a favorable revenue forecast and the governor's endorsement of a new insurance surcharge, Senate Democrats say they are ready to push for a sizable increase in state aid to schools.

Democratic leaders said they would work to provide \$5.4 billion to schools, \$400 million above Gov. Ted Kulongoski's initial funding proposal.

Senate President Peter Courtney called \$5.4 billion, the minimum amount needed to head off more classroom crowding and shortened school years.

The Democrats' announcement was immediately assailed by House Republicans.

"They started filling up the shopping cart before they know how much money they have to spend," said House Speaker Karen Minnis, R-Wood Village.

Governor Kulongoski had proposed that the Oregon Lottery introduce new electronic slots games, with \$65 million of the additional revenue dedicated to the state police.

Democrats want that lottery money to go to schools, so the governor is proposing to pursue the insurance surcharge to pay for state police.

There's no specific insurance surcharge plan on the table at this point, but similar legislation introduced in 2003 would have cost the average motorist about \$36 per year.

"It would be a tax increase on every citizen who owns a car," the Canby Republican said.

Bin Laden enlisting Iraqi operative for U.S. attacks

WASHINGTON, D.C. — New intelligence indicates that Osama bin Laden is enlisting Abu Musab al-Zarqawi, his top operative in Iraq, to plan potential attacks on the U.S.

Al-Zarqawi has been involved in attacks in the Middle East. He has not been known to have set his sights on America.

In a bulletin this weekend, Brian Roehrkasse described the information as "credible but not specific." The intelligence was obtained over the past several weeks.

The government has no immediate plans to raise its national terror alert level, Roehrkasse said. But the intelligence "reiterates the desire by al-Qaida and its associates to target the homeland."

Bin Laden was in contact with al-Zarqawi within the past two months in an effort to enlist him, said an official, who spoke anonymously.

Suicide bomber kills at least 115, wounds 132

HILLAH, Iraq — In the deadliest strike since the fall of Saddam Hussein, a suicide car bomber attacked mostly Shiite police and National Guard recruits lined up for physical exams Monday, killing 115 and wounding 132 in the area.

The bombing presented the bold challenge yet to Iraq's efforts to build a security force.

Hillah is a largely Shiite Muslim town about 60 miles south of Baghdad.

— The Associated Press

Disorders: University offers individual counseling and group treatment

Continued from page 1

from eating disorders could be larger, because men are less likely to accept having an eating disorder, which is commonly identified as a female problem, according to ANRED.

Anorexia nervosa and bulimia nervosa are two of the most common eating disorders with which college identify. Anorexia nervosa is characterized by "excessive weight loss from self-starvation," according to NEDA. People with anorexia nervosa may have unusual eating habits, restricting their food intake and keeping track of everything they eat, and may exercise excessively.

People with bulimia nervosa may have "a secretive cycle of binge eating that is followed by purging," according to NEDA. People may "purge" themselves by vomiting or using diuretics or laxatives. Many people don't purge themselves, however.

Binge eating disorder diverges from bulimia nervosa because it doesn't involve purging food, but people with binge eating disorder may sporadically fast or diet. "(It) is identified by periods of uncontrolled, continuous or impulsive eating

beyond the point of feeling comfortably full," according to NEDA.

While many people may identify with one specific eating disorder, it's more likely they have a combination, said Brooks Morse, a University Counseling and Testing Center psychologist who oversees eating disorders resources at the counseling center. Many people will show symptoms of several problems. For instance, a person with bulimic tendencies may also compulsively exercise, she said.

Morse said a host of issues contribute to college students developing eating disorders.

"The age is a time of individuation," Morse said. "There's that sort of conflict of being on one's own but at the same time feeling more vulnerable."

Not only are students moving from adolescence to adulthood, but they're doing it in a "semi-closed environment" where they're comparing themselves to others and trying to fit in, Morse said.

"For women in particular, that whole 'Am I good enough?' question expresses itself on the body," she said.

Morse said eating disorders can also develop from feelings of powerlessness. She said if people are

anxious from uncontrollable issues such as racism or homophobia, their anxiety may be taken out on the body because "the body is one way that people identify."

The social implications of dealing with a changing body, trying to fit in and dealing with feelings of powerlessness can contribute to college students who are already restricting their eating developing a full-blown eating disorder when these influences are combined with psychological and biological factors, Morse said. The proportion of the problem that is psychological, biological or social is different for each person who has an eating disorder, but culture and experience play a prominent part, she said.

"Eating disorders didn't come out of a vacuum," Morse said, noting that models became thinner and the country began to emphasize "healthy" numbers rather than behavior around the 1970s. "Underneath the body issues is some kind of psychological pain, but the form that pain takes is on the body because of the media and cultural issues."

Body Mass Index, or BMI, is a height-weight ratio used to measure body fat and to set a range of ideal

weights. But a person's health is too complex to be characterized by a simplified set of numbers, Morse said.

"Our society wants quick answers," she said. "But I think it actually makes more problems, because people look at (BMI) to see if they're healthy instead of looking at things holistically. Studies actually show that people, women in particular, are likely to think they're overweight even if they meet those weight requirements."

When looking at a person's height and weight, factors such as body type, blood pressure, resting heart rate and ethnicity are also important to determine overall health, she said.

The University uses a team approach to treating eating disorders, combining psychological, medical, nutritional and exercise services for clients. After students decide they want help, they sign a "release of information" form authorizing the team to discuss their treatment and goals.

The University Counseling and Testing Center offers two different programs for people with eating disorders. The Eating Awareness Workshop helps people to change their attitudes and feelings about food and

weight by focusing on issues such as body image, self-esteem, anger, perfectionism and stress. The Eating Disorders Group is a program offered to women who have or have had an eating disorder and "are ready to address the issues that have caused it," with a focus on feelings and relationships, according to the center's Web site.

Eating disorders have a range of short-term and long-term consequences on a person's health, including heart muscle shrinkage, slow or irregular heart beats, heart failure, kidney failure, osteoporosis, tooth erosion and death, according to the Eating Disorders Coalition for Research, Policy and Action.

Of all psychiatric disorders, anorexia nervosa has the highest mortality rate, killing up to 20 percent of those afflicted, according to the EDC.

Eating disorders and their causes are not limited to a specific group of people, Morse said.

"We have the stereotype that it's upper class, white females, but that's not accurate," Morse said. "Everyone is vulnerable."

karahansen@dailyemerald.com

**Summer Employment
Glacier National Park
Montana**

Apply Today!
Interviewing On Campus March 2nd
The Resort at Glacier, St. Mary Lodge

For information call:
1-800-368-3689

Apply Online @ www.glacierparkjobs.com

**ALL YOU CAN EAT
SPAGHETTI
& garlic bread
\$3.50**

Every Tuesday
**PIZZA
PETE'S**

2506 Willakenzie 344-0998
Oasis Plaza
2673 Willamette 484-0996
27th and Willamette

**STOREWIDE
SALE!**

**20-70%
OFF**

Ski Equipment
Downhill • Cross Country
Snowboards • Clothing

Starts Noon Tomorrow!
FREE 50th Birthday Refreshments!

Berg's Ski Shop

13th & Lawrence • 683-1300 • www.bergsksishop.com

Premier Travel

- Airfare Specials!

Ft. Lauderdale	\$198.00*
Philadelphia	\$198.00*
Cancun	\$342.00*
Sao Paulo	\$815.00*

*tax and fees not included, restrictions apply. Subject to change without notice.

E-mail Passes issued On-Site!!!
E-mail: fares@lux2travel.com

**1011 Harlow
747-0909**

Student Travel Experts

write for the
Oregon Daily Emerald
For more information about freelancing
call 346-5511.