New Employment Opportunities!

The Division of Science and Mathematics at Seattle Central Community College is searching for a Dean of the Division and for full-time faculty in biology/biotechnology, mathematics, chemistry, and environmental science/physical oceanography.

To obtain the official job announcements and application packets for any of these positions, go to Human Resources at the Seattle Community College District office. These materials can also be accessed online at http://seattlecolleges.edu/humanresources

Deadline for application is March 5, 2007, except for mathematics (March 12).

Seattle Central Opens New Science and Math Facility

The new building is a welcome addition to the Seattle Central campus, doubling the amount of laboratory space and providing classrooms for biological sciences, biotechnology, chemistry, earth and environmental sciences, mathematics, physics, astronomy and computer science.

The four floors of instructional space total 69,000 square feet, and each floor provides study areas for students, offices for faculty and staff and includes related preparation, storage and support spaces. The first floor includes a large study lounge and tutoring/testing center, two math/computer labs, and office space.

The second floor houses the geology laboratory, physics laboratory, two large lecture rooms and three classrooms. Biology students will find the third floor labs exciting with cutting-edge biology and biotechnology laboratories.

Chemistry classes occupy much of the fourth floor where modern laboratories (two inorganic chemistry labs and one organic chemistry lab), a preparation room, and two demonstration classrooms serve students.

NSF Grant Funds Scholarships for Science and Math Students

Seattle Central has been awarded a five-year, $500,000 grant from the National Science Foundation to fund student scholarships in areas of science, technology, engineering and mathematics. The ONSIGHT Scholarship Project takes its name from rock climbing jargon, where an onsight is a clean ascent with no falls, or a successful first try with no prior knowledge of the route. These two-year scholarships were granted to 20 low income students for 2006-2007. Scholars can renew their $5,000 individual scholarships for up to two years.

The ONSIGHT Project will fund student support infrastructure, project management and scholarships that will be awarded to talented, low-income students pursuing
ONSIGHT Grant (cont.)

careers or transfer degrees in biology, biotechnology, chemistry, computer science, engineering, mathematics and physics.

“From past experience, we know that the ONSIGHT scholarship will improve retention in our STEM departments,” said Rebecca Hartzler, physics and engineering instructor and team administrator of the ONSIGHT project. “In the coming years, we also hope to leverage ONSIGHT funds to attract talented students from area high schools.”

The grant is designed to help the college increase the number of women, minority and nontraditional students studying mathematics and science. Additionally the grant will help Seattle Central partner with universities and industry to promote and provide educational opportunities over a wider geographic area.

”The need for the ONSIGHT Scholarship project is great,” said Mark Ainsworth, interim dean of Science and Mathematics. “Last year, nearly 30 percent of the ONSIGHT target major students at Seattle Central were low income. And while nearly half of STEM students apply for financial aid, only one third receive any aid package.”

ONSIGHT Scholars will attend regular seminars introducing college support services and addressing academic and career issues. In addition, Seattle Central will offer a comprehensive program for ONSIGHT Scholars that includes career planning workshops, seminars by industry partners and opportunities to apply theory in industry settings. Scholars will also work with faculty and industry mentors on projects that apply their discipline to real-world problems. Twelve full-time science, technology, engineering and mathematics faculty have committed to serve as mentors to scholars through the duration of the project.

Gates Foundation Gives $1 Million to Science and Mathematics Division

A $5 million grant was awarded by the Bill & Melinda Gates Foundation to the Seattle Community Colleges, among the largest ever awarded by the Gates Foundation to a community college. $1 million of the award was dedicated to the Science and Mathematics Division at Seattle Central Community College, to fund equipment and supplies.

The announcement was made during dedication of the new Science and Mathematics building in November 2006. William H. Gates Sr., foundation co-chair, noted that “Community colleges are an important gateway to opportunity for people in our city, and we’re honored to support the Seattle Community Colleges in their efforts to provide the best tools for students developing skills in science, math, and manufacturing.”

New Plant Sciences Lab

The latest architectural drawings for the new Plant Sciences Laboratory are eliciting oohs and aahs from the faculty and staff. The PSL will be located at the currently vacant lot on
Boylston next to Seattle Central’s parking garage. Approximately 15,000 square feet of buildings and plant installations will serve Seattle Central and the community at large. Preliminary plans include two greenhouses, an herb garden, a children’s garden, and the Northwest Native Plant Collection.

**Engineering Students Compete**

In July 2006, students from Seattle Central’s space club completed a zero-gravity experiment aboard NASA’s C-9 airplane, affectionately known as the Vomit Comet. By descending at the correct angle and speed, the Vomit Comet can achieve several minutes of zero gravity. Science and Mathematics students tested a new method of creating bubbles in liquid under zero gravity. The Seattle Central team was one of only two community college teams in the U. S. chosen to participate.

Two teams of engineering and physics students from Seattle Central have joined the 2007 state-wide competition to design a human-powered vehicle out of paper products. The vehicle must be 90% paper products by weight. The HPPV challenge will take place in April; last year’s team, the first ever from Seattle Central, won the Best Team Spirit award.

Another group of engineering students are competing in this year’s national TROPOS challenge, to design a rocket that will ascend at least 3 miles into the troposphere. All groups are supervised by Rebecca Hartzler (physics and engineering).

**RECCS to a T**

The Research Experience for Community College Students (RECCS) is a collaboration between the Science and Mathematics Division at Seattle Central and the University of Washington Engineered Biomaterial (UWEB) research group. This program has been running since 2002; acceptance is highly competitive. After receiving the $3000 scholarship, students will spend 10 weeks working on essential research in different areas of bioengineering and biomaterials and interact with peer scientists from across the nation. At the end of their research, the students are required to present their results in the form of a poster, an oral presentation, and a paper that is published in an undergraduate research journal.

Until now, 22 students from Seattle Central have participated in this program. Some of the students participated in additional research with UWEB, some have gone on to medical school and others are pursuing their careers in their science majors. Supervising faculty at Seattle Central include Esmaeel Naeemi
(chemistry), Doug Wick (chemistry), Wendy Rockhill (biology) and Mark Ainsworth (biotechnology).

**Achieving The Dream**

Seattle Central has been awarded a $50,000 planning grant from the Lumina Foundation to help low-income and under-represented students increase their success in science and mathematics students. The award is being used to assist students in completing both their classes and requirements for graduation and transfer. The Achieving the Dream program is championed by Mimi Aregaye and Felice Tiu (both in mathematics) and Mark Ainsworth (biotechnology).

**New Textbooks From Science and Mathematics Faculty**

Last summer 2006, Greg Langkamp (mathematics) and Joe Hull (earth and environmental science) published their textbook “Quantitative Reasoning and the Environment.” This college-level mathematics text features an environmental theme throughout and is targeted primarily at liberal arts majors, though science majors will get an early exposure to applied mathematics. Prentice-Hall is the publisher.

Mike Pepe (mathematics) and Eugene Herman have authored a new version of their linear algebra text. Their book has a new title (“Visual Linear Algebra”), a new publisher (Wiley) and a new content. Visual Linear Algebra contains a traditional approach but also uses a set of interactive computer tutorials as a learning tool: the student learns by doing.

**Teaching Teachers Mathematics**

Andrea Levy (mathematics) has developed a series of three new courses for potential K-8 math teachers. These courses are designed to address the educational needs of these future teachers, and help them develop problem solving skills and enhance their understanding of math concepts taught at K-8 levels. The courses align with both Washington State Essential Academic Learning Requirements (EALR) and the National Council of Teachers of Mathematics (NCTM) Standards. Demand for this program has grown very rapidly since the courses joined the curriculum. [http://seattlecentral.edu/faculty/alevy/MathForTeachers_index.htm](http://seattlecentral.edu/faculty/alevy/MathForTeachers_index.htm)

Photos by Bob Hereford and faculty.