



# University of Washington Green Labs

Let me tell you why you need Green Labs, too.



**78%** of floor area at UW is non-lab space

**22%** of floor area at UW is lab space

and they use

yet they use



**35%**  
of campus energy

**65%**  
of campus energy



**1000**  
ULT freezers at  
UW totaling

= 40 ULT freezers



**500,000**  
in annual energy costs



one ULT freezer uses the same energy as a home

that's

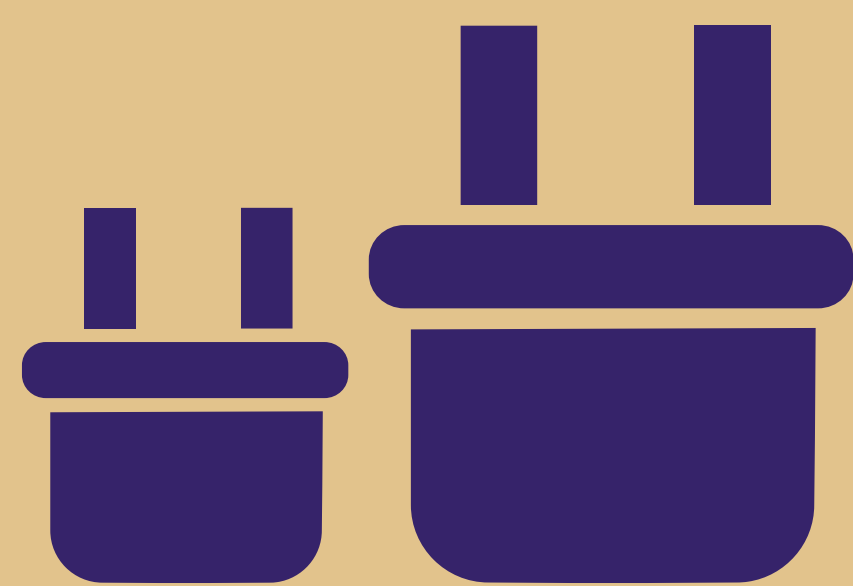
**5-10**

times more energy

per square foot than an average office building



office building  
energy use



lab energy use

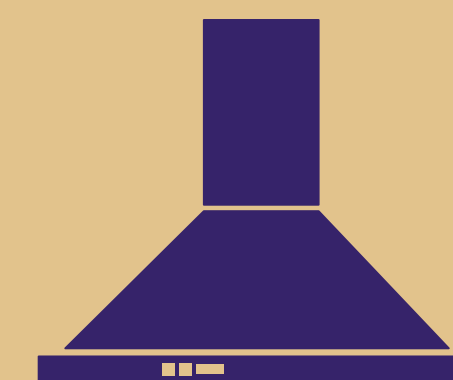


**1200**  
fume hoods at  
UW totaling

= 40 fume hoods



**2.6 million**  
in annual energy costs



one fume hood uses 3.5 times the energy of a home

## HOW WAS THE GREEN LAB CERTIFICATION PROGRAM DEVELOPED?

The Green Laboratory Certification Program was initiated by the Environmental Stewardship & Sustainability Office in an effort to minimize the environmental impact of laboratories at the University of Washington. The Green Laboratory Certification Committee formed in Summer 2012 to develop the certification criteria and create resources to assist laboratories in their green efforts.

The committee was led by a student intern and was comprised of members with varied expertise in laboratory operations, environmental health and safety, recycling, purchasing, and supplies.

The Environmental Stewardship & Sustainability Office also worked with the Program on the Environment to offer ENVIR 480, a hands-on course focused on green laboratories. The students' projects for the class - which included a shopping list of environmentally friendly laboratory products, a newsletter, a logo and more - were later integrated into the Certification Program. The program was officially launched in Spring 2013, helping the University achieve its conservation goals as outlined in the Climate Action Plan.

## WHAT ARE THE LEVELS OF CERTIFICATION?

Qualifying laboratories are recognized at different levels of certification based on the criteria they meet. The evaluation has 8 categories and adheres to a point system, with 1-3 points assigned to various laboratory attributes or behaviors and with opportunities for bonus points for extra effort. Based on the feasible actions for each laboratory, certification is awarded according to the following categories:

**Bronze: 55-69%**

**Silver: 70-84%**

**Gold: 85% +**

These percentages are calculated by dividing the number of points the laboratory achieves by the total points it is capable of achieving. For example, not every laboratory has a fume hood, so not every laboratory can say "fume hood sashes are kept closed when not in use." Instead of penalizing labs for things that are not applicable to them, the program adjusts the total number of points possible accordingly.

## QUOTES FROM PRACTICING GREEN LABS AT UW:

"Nearly all general chemistry labs have been made to use minimal chemicals and be safe to drain."

All organic chemistry labs are micro-scale experiments.

We order chemicals in the amounts that are needed and not excess amounts.

We use vacuum pumps instead of aspirators to save water.

All of the metal we buy for the projects comes from a large scale recycled metal supplier.

We got our microwave at Goodwill.

Our microscope has LED lighting.

We open windows instead of using the AC.

We reuse sample jars and give jars to other labs.

## RESULTS HAPPEN



**43**

certified labs at UW  
as of October 2014



**14.29 million**  
total sustainability savings in 2014



**1055**

people work in  
certified Green Labs



**8 million**  
could be saved through additional  
sustainable laboratory practices