



Green Labs Program Checklist Guidance

NAU NORTHERN ARIZONA
UNIVERSITY

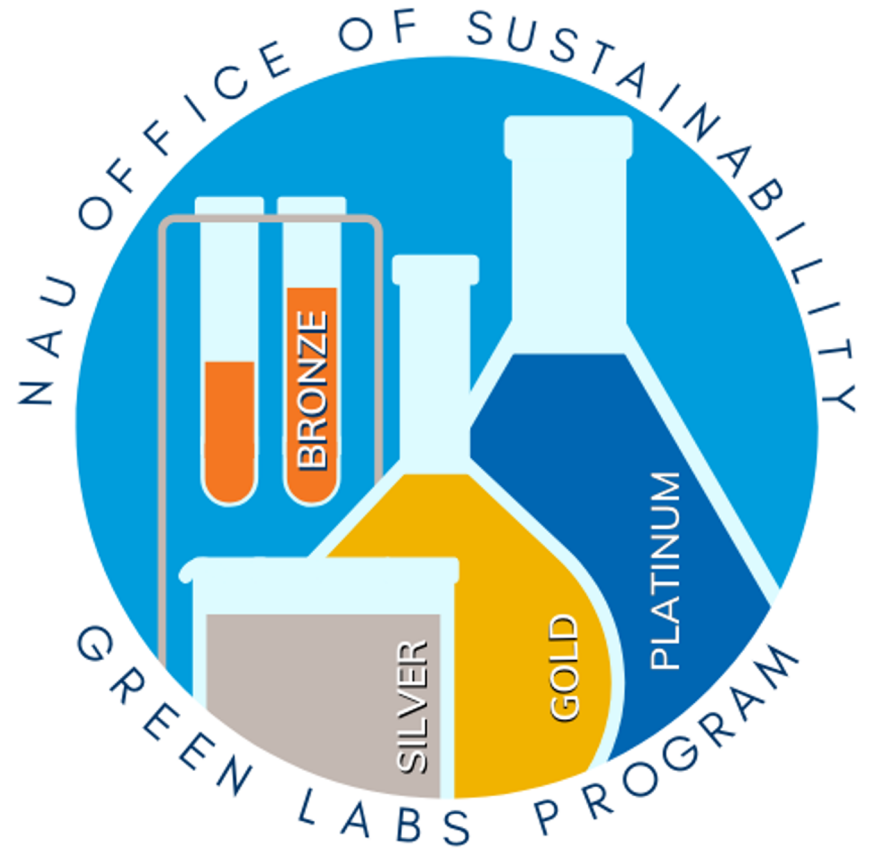
Environmental Health and Safety
Office of Sustainability

What is the Green Labs Program?

The Green Labs Program is a collaboration between the Office of Sustainability and Environmental Health & Safety with the goal to minimize the environmental impact of laboratories, and inspire and promote a culture of sustainability in laboratories at NAU. We have developed educational information and a checklist for labs to complete to become a Certified Green Lab.

As a Certified Green Lab you will have the opportunity to cultivate a positive impact on people, planet, and profit, the three pillars of sustainability. Sustainable laboratories is a growing field, and this program lays out the foundation for your lab to be a leader in this field and demonstrate your commitment to sustainability.

This certification is open to any lab on campus!



Waste Metrics from EH&S

Fall 2019 semester was spent analyzing EH&S waste data from 2015-2019

The total amount of hazardous and non-hazardous waste generated from labs on campus has been increasing, and has averaged **50,766 lbs/yr** since 2015.

The costs associated with properly handling the waste has also increased, with an average annual cost of **\$58,364**.

Laboratories also contribute to about **9%** of NAU's total energy use, or about **28 million kWh per year**.

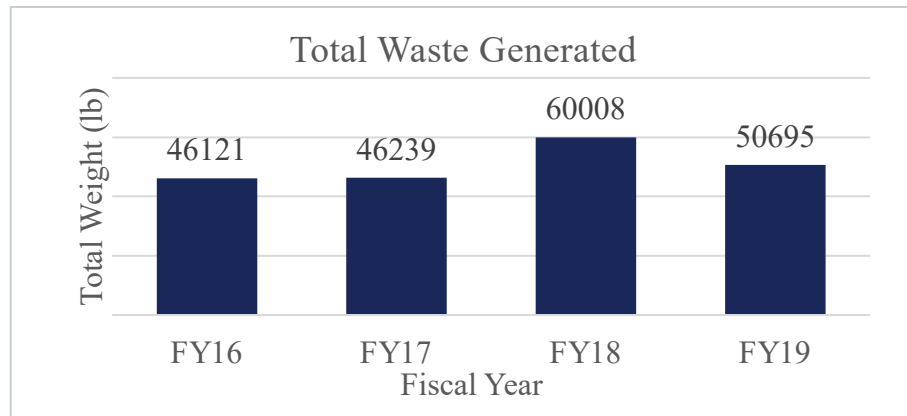


Figure 1: Total Waste Generated

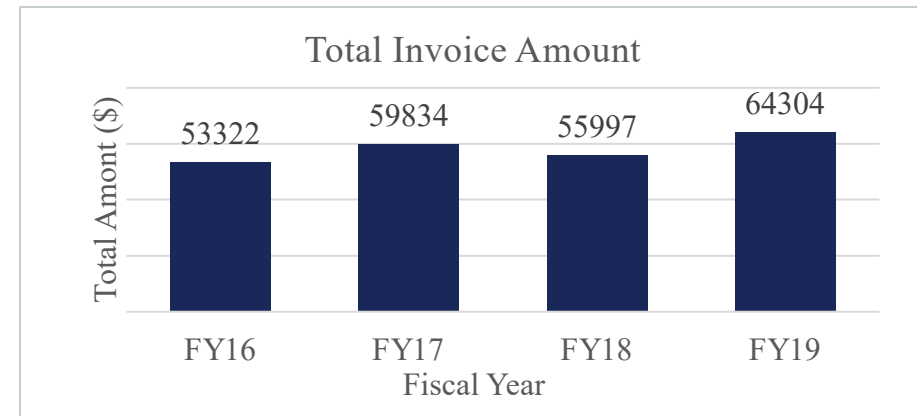


Figure 2: Total Invoice Amount

Certification Checklist

4 levels: *Bronze, Silver, Gold, and Platinum*

6 subsections:

1.0 Green Chemistry

2.0 Water and Waste Reduction

3.0 Procurement and Purchasing

4.0 Energy and Appliances

5.0 Cold Storage

6.0 Engagement

Each subsection has questions with specific asks that the lab can mark either *yes*, *no*, *not applicable*, or *pledge*.

Pledge means that they plan to implement this ask.

Not applicable selection does not count against the lab, instead it is taken out of consideration to become certified.

To complete each level, **75%** of the asks need to be completed, and marked *yes*.

Checklist is formatted on an Excel workbook, with tabs seen below.

Instructions	Lab Information	Bronze Level	Silver Level	Gold Level	Platinum Level	Results
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How does it work?

Checklist Questions

Level 1
Incomplete

More Information

Level 1: Bronze

1.0 Green Chemistry

		Select answer below
1,1	We shut the sash when the fume hood is not being used	Select
1,2	We have installed 'Shut the Sash' stickers on our fume hoods to serve as reminders to shut the sash	Select
1,3	We have had a discussion on ACS's 12 Principles of Green Chemistry	Select

2.0 Water and Waste Reduction

2,1	We spend time reviewing proper recycling practices with all lab members and have answered their questions	Select
2,2	We have posters around our lab explaining what can and cannot be recycled	Select
2,3	When electronic waste (computers, laptops, printers, batteries, etc.) needs to be disposed of, we contact Property Surplus so that it may be reused or recycled	Select
2,4	We have identified if our waste is EPA hazardous or not, and have established proper waste streams for these materials	Select
2,5	We have installed "Just Try One" prompts next to paper towel dispensers	Select

3.0 Procurement and Purchasing

3,1	We think about the potential waste of unused chemicals, and only buy what is needed, or check with EH&S to see if they have any unused reagents we can use	Select
3,2	We send unused chemicals to EH&S to be reused or recycled	Select

Asks, formatted as questions for the lab to answer

This automatically updates to "Level 1 Complete!" as the lab reaches >75% completion of the asks

Dropdown menu for labs to select *yes*, *no*, *not applicable*, or *pledge* in response to the questions

How does it work?

4.0 Energy and Appliances		
4,1	We have switched to more energy efficient light bulbs where able	Not Applicable
4,2	We have installed "Flip the Switch" prompts where applicable to serve as reminders to turn off lights whenever we leave a room	Yes
4,3	We have installed "Reduce the Juice" prompts where applicable to serve as reminders to conserve energy	No
5.0 Cold Storage		
5,1	We schedule a de-icing or defrosting 1-2 times a year	Yes
6.0 Engagement		
6,1	We have a 'Green Lab Change Agent' and/or a 'Green Lab Leader'. His/her name is _____. This person will be the inspiration and leader for the lab in adopting and encouraging key sustainable practices	Pledge
6,2	We have educational posters on Green Chemistry and sustainable lab practices in our lab, specifically the ACS 12 Principles of Green Chemistry	Yes
6,3	We have tapped into the culture of sustainability through NAU's Green Flash, Green NAU's Facebook, Instagram, and Twitter accounts	Yes
		TOTAL POINTS
		12
		POSSIBLE POINTS
		16
		Level 1 Complete!

"More Information" column will be developed through the Pilot Program as needs/questions emerge for more clarification or support

A point is earned by marking *yes*

Total points are determined by the number of asks that can be answered, minus any of the asks marked *not applicable*

This automatically updates to "Level 1 Complete!" as >75% of the asks are completed

Last Steps...

Once you have completed the checklist, send it back to your Green Labs Coordinator with the signed Green Labs Program Pledge.

We look forward to working with you!

Green Labs Coordinator – Sydney Wilson

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