Montana State University Green Lab Certification

# Principal Investigator: Date: Department: Building: Room(s):

**Overview & Instructions:**

The Montana State University Green Lab Certification addresses sustainable behaviors, conservation efforts, and environmentally friendly infrastructure applicable to laboratory settings. Through the Research Integrity and Compliance (RIC) evaluation check list, labs can achieve graded levels of green lab certification:

* **Green**: Awarded to labs that achieve 100% lab assessment scores
* **Gold**: Awarded to labs that achieve ≥95% lab assessment scores
* **Silver**: Awarded to labs that achieve ≥90% lab assessment scores

To be recognized as a certified green lab, laboratories will be assessed in accordance with a green lab certification check list. The certification check list is first completed by lab staff as self-assessment. Thereafter, the check list is passed along to the RIC (mark.dewald@montana.edu or [mary.gauvin@montana.edu](https://montanaedu-my.sharepoint.com/personal/j35r432_msu_montana_edu/Documents/Desktop/RIC%20Sustainability%20Meetings/mary.gauvin%40montana.edu)) to schedule an onsite sustainability survey. Upon RIC evaluation, labs will receive a final score. Labs will receive a certification based on the lab assessment scores.

Unless otherwise specified, the scoring will adhere to the following:

Complete = 1 pt; Partial = 0.5 pt; No = 0 pt; N/A = excluded from total score

# Equipment:

Turn off energy consuming appliances/equipment when not in use (implement “turn me off” labeling). Notable laboratory equipment includes:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Complete | Partial | No | N/A | Thermocyclers |
| Complete | Partial | No | N/A | Refrigerated centrifuges |
| Complete | Partial | No | N/A | Biosafety cabinets |
| Complete | Partial | No | N/A | Computers |
| Complete | Partial | No | N/A | Other, please describe:  |
|  |  |  |  |  |

Ultra-Low Temperature Freezers (ULTs):

 Complete  Partial  No  N/A Units are staged in centralized location/room,

 maintaining 6-8” free perimeter, near an exhaust duct.

 Complete  Partial  No  N/A Temperature setpoint increased from -80°C to -70°C.

 Complete  Partial  No  N/A An accurate inventory of contents in maintained.

 Complete  Partial  No  N/A Minimize the duration in which the door is kept open.

 Complete  Partial  No  N/A Keep the unit well-stocked.

 Complete  Partial  No  N/A Share/consolidate cold storage space.

 Complete  Partial  No  N/A Door/gasket ice build-up is regularly removed. Units are defrosted, as needed.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Complete | Partial | No | N/A | Filters are routinely cleaned/replaced. |
| Complete | Partial | No | N/A | Coils are routinely cleaned. |
|  |  |  |  |  |

Biosafety Cabinets (BSCs):

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Complete | Partial | No | N/A | The use of UV light in biosafety cabinets is |
| discouraged.Complete | Partial | No | N/A | Biosafety cabinets are regularly (annually) |

professionally certified.

 Complete  Partial  No  N/A The BSC catch basin is regularly cleaned and is void of

any debris.

Fume Hoods:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Complete | Partial | No | N/A | Lower fume hood sash when not in use. |
| Complete | Partial | No | N/A | The sash level is appropriate when work is ongoing |

(i.e. not raised all the way up).

 Complete  Partial  No  N/A Minimize the storage of erroneous items/equipment

in the fume hood.

 Complete  Partial  No  N/A The fume hood is not utilized to evaporate chemicals or reagents to circumvent appropriate waste disposal methods.

# Water Conservation:

 Complete  Partial  No  N/A Turn off the water faucet/tap when it is not in use.

 Complete  Partial  No  N/A Do not allow water sources to run longer than necessary.

 Complete  Partial  No  N/A Low-flow faucet water aerators.

 Complete  Partial  No  N/A Conscious water quality selections are made (ex. Tap vs. RO

vs. DI).

 Complete  Partial  No  N/A Utilize membrane/diaphragm/oil free pumps or we use the

house vacuum system instead of water-vacuum aspirators.

 Complete  Partial  No  N/A When possible, glassware is reused to minimize the need for washing.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Complete Complete | Partial Partial | No No | N/AN/A | Faucets are free of leaks.Reusable alternative to ice (e.g. Lab Armor beads). |
| **Recycling:** |  |  |  |  |
| Complete | Partial | No | N/A | Recycle DI water filtration units. |
| Complete | Partial | No | N/A | Recycle/reuse empty tip boxes. |
| Complete | Partial | No | N/A | Recycle cardboard/paper. |
| Complete | Partial | No | N/A | Recycle bottles/glassware. |
| Complete | Partial | No | N/A | Recycle ink/toner cartridges. |
| Complete | Partial | No | N/A | Recycle batteries and/or other universal waste. |
| Complete | Partial | No | N/A | Recycle solvents (e.g. acetone) |
| Complete | Partial | No | N/A | Select suppliers who offer product and packaging take-back |

schemes.

# Sustainable Purchasing:

 Complete  Partial  No  N/A Whenever possible, share equipment as opposed to making

individual purchases.

 Complete  Partial  No  N/A Purchase ACT-labeled products which emphasize Accountability, Consistency, and Transparency ([ACT](https://act.mygreenlab.org/)) around manufacturing, energy and water use, packaging, and end-of-life.

 Complete  Partial  No  N/A Purchase products produced from recycled plastic.

 Complete  Partial  No  N/A Purchase products that are readily biodegradable (notably including eco-friendly disposable gloves).

 Complete  Partial  No  N/A Purchase bagged conical tubes instead of Styrofoam racked.

 Complete  Partial  No  N/A Utilize reusable products in lieu of disposable.

 Complete  Partial  No  N/A Use stackable or refillable tip boxes.

# Facility Design / Infrastructure:

 Complete  Partial  No  N/A Lights are turned off when the lab is vacant (or the room is

equipped with occupancy sensors).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Complete | Partial | No | N/A | Lab doors are kept closed. |
| Complete | Partial | No | N/A | If capable of being opened, windows are kept closed. |
| Complete | Partial | No | N/A | Window blinds/shades are lowered. |
| Complete | Partial | No | N/A | Lab is free of general maintenance issues (ex. Poorly sealed |

windows, wall penetrations, missing ceiling tiles, etc.).

 Complete  Partial  No  N/A Thermostats are not obstructed or burdened (i.e. in direct

sunlight or heat produced by nearby equipment)

 Complete  Partial  No  N/A Only essential equipment connected to emergency power.

# Engagement:

 Complete  Partial  No  N/A Sustainable behaviors incorporated into lab standard

operating procedures (SOPs).

  Complete  Partial  No  N/A Disseminate green lab initiatives (such as displaying

posters/notices, departmental emails, etc.).

 Complete  Partial  No  N/A Provide feedback to the RIC (mark.dewald@montana.edu; 406-994-6757or [mary.gauvin@montana.edu](https://montanaedu-my.sharepoint.com/personal/j35r432_msu_montana_edu/Documents/Desktop/RIC%20Sustainability%20Meetings/mary.gauvin%40montana.edu); 406-994-6821).

**Waste Management**:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Complete | Partial | No | N/A | When possible, minimize single-use items in the laboratory |

 Complete  Partial  No  N/A Appropriately distinguish between biomedical and biological, but non-biomedical, waste streams.

Individual Completing Self-Assessment: Self-Assessment Completion Date:

\*Upon completion of the self-assessment, please send a copy to: mark.dewald@montana.edu ; 406-994-6757or [mary.gauvin@montana.edu](https://montanaedu-my.sharepoint.com/personal/j35r432_msu_montana_edu/Documents/Desktop/RIC%20Sustainability%20Meetings/mary.gauvin%40montana.edu); 406-994-6821

# To be completed by Research Integrity and Compliance

Individual Completing Evaluation: Evaluation Date:

Evaluation Score: