Certification Manual

The individual decisions residents make on a daily basis, even if seemingly small, play a critical role in the University’s sustainability initiatives. Penn’s Green Campus Partnership seeks to recognize these choices and provide residents with an opportunity to reflect on their environmental impact by offering the Green Living Certification program—an environmental certification available for residents living on campus.

Establishing greener lifestyles creates a tangible, positive impact on our campus. By offering Green Living Certification, we hope residents will be inspired to take further steps towards improving the health of our environment and to provide a model for others to do the same.

Applying for Certification

1. Make sure your dorm room and habits comply with the 5 Required Actions.

2. Fill out the survey here in accordance with how many Optional Actions you qualify for.

   Optional Actions are organized into five categories and are assigned a corresponding number of points based on a combination of environmental impact, difficulty of implementation, and cost. There are 100 total points available.

   Your total number of points from the Optional Actions section will determine which level of certification you have achieved.
   - Bronze: 25 points achieved
   - Silver: 40 points achieved
   - Gold: 55 points achieved

3. Submit your completed form. If your total score exceeds 25 points, you will receive the level-appropriate prize(s) and the Green Living Certified sticker.

   Your room may be subject to a room audit, so be sure to fill out the application correctly and honestly.

4. To achieve a higher level of certification, try completing additional actions by changing your behaviors, then repeat steps 1-3.

We strongly encourage roommates and suitemates to apply for and work towards Green Living certification together, though each resident is certified individually.
If you have any questions, comments, or suggestions, please email our Green Living Certification Manager at PennGreenLiving@gmail.com.

A) Required Actions

In order to become certified, you must complete all five of these actions.

1. I practice good recycling habits and have a recycling bin inside my room.
   Recycling is one of the most effective ways to help protect the environment and reduce the amount of waste entering landfills. Single stream (or commingled) recycling makes it easy to recycle at Penn. Click here for a full list of recyclable materials and printable posters. Click here to find out where you can recycle in Penn’s College Houses.

2. I use CFLs in my room instead of incandescent light bulbs.
   CFLs use up to 75% less energy than incandescent bulbs and last up to 10 times longer, so replacing a standard 100 watt incandescent light can save more than $40 over the lifetime of the bulb. Ask the information desk in your College House about where to properly dispose of CFLs. CFLs should not be disposed with normal trash/recycling because they contain trace amounts of mercury.

3. I make sure I turn off the lights when they are not in use.
   This may seem simple, but it’s easy to forget to switch off the lights when leaving a room. Lighting accounts for 14% of all electricity consumption in homes.

4. I make an effort to tightly turn off faucets and showers and report any leaks to Penn Maintenance.
   One faucet dripping every six seconds wastes nearly 350 gallons of water per year. Click here to initiate a maintenance request.

5. I have encouraged or am going to encourage other residents to receive their Green Living Certification.
   Your sustainable behaviors have a positive impact on the environment. The more residents that adopt the behaviors required to receive Green Living Certification, the more of a difference we can make! Residents like you play a large role in getting fellow residents involved.
1. I regularly use reusable shopping bags instead of paper or plastic bags. (1 point)
   Plastic bags are non-biodegradable by-products of the petroleum industry and contaminate water, land, and air during production and disposal. Paper bags actually require more energy than plastic bags to produce and recycle, and they contribute to forest degradation.

2. I use a reusable coffee mug or thermos instead of a disposable cup when I purchase to-go drinks at food establishments. (2 points)
   By using a reusable travel mug instead of disposable paper or plastic cups, you can save trees, water, and energy – plus, many cafes offer discounts for bringing a reusable thermos.

3. I use reusable plates, cups, and utensils instead of disposable alternatives. (2 points)
   Low recycling rates and long decomposition times mean that plastics can take centuries to biodegrade, leaching chemicals into groundwater and posing threats on wildlife. Using reusable dishware helps avoid environmental problems associated with one-time use plastic ware.

4. I own a reusable water bottle and use it as often as possible instead of buying bottled water. (2 points)
   In the US, tap water is more strictly regulated for safety and health than bottled water. In addition to health concerns, the process of manufacturing one year's worth of bottled water emits over 2.5 million tons of carbon dioxide, requires twice as much water as what actually goes into the bottle and over 17 million barrels of oil. This much oil could fuel 1 million cars and light trucks for a year.

5. I make an effort to reduce the amount of paper towels I use. (2 points total)
   - In my kitchen and bathroom I use reusable towels, rags, and sponges so that my use of paper towels is minimal. (1 point)
   - In communal or public bathrooms where only paper towels are provided, I make an effort to reduce the amount of paper I use. (1 point)
   Using paper towels contributes to deforestation, soil degradation, water pollution, air pollution, and climate change. The production of one ton of paper towels requires the use of 17 trees and 20,000 gallons of water. Every day in the US alone, over 3,000 tons of paper towel waste is produced.

6. I print double-sided on my personal printer. (2 points)
   Double-sided printing is a great way to reduce paper use. Click here for more information on how to set up double-sided printing on your printer.

7. I reuse paper that only has text on one side and keep a scrap paper pile near the printer for use whenever possible. (1 point)
   Using both sides of a sheet of paper reduces your paper consumption by half and saves money.

8. I reduce paper margins and/or font size in order to decrease the length of documents printed (especially for non-formal documents). (1 point)
   Reducing font size and paper margins to the “narrow” setting on MS Word or other word processing programs decreases the number of pages printed, saving paper, money, and other valuable resources.
9. I recycle items that require special recycling methods in the proper recycling collection locations. (2 points)
Many items like ink cartridges, batteries, CFLs, hardcover books and writing utensils, as well as all electronics devices and appliances can be recycled. Click here for more information about recycling these items.

10. I donate my unwanted items to PennMOVES at the end of the year or to on-campus locations during the school year.
   - I have donated unwanted items to PennMOVES or on-campus locations and plan to in the future. (3 points)
   - I have not donated unwanted items to PennMOVES or on-campus locations in the past, but I will in the future. (3 points)

Each spring PennMOVES collects residents’ unwanted belongings for Goodwill Industries. During the school year, there will be Goodwill containers near Rodin and under Sansom West.

11. I reduce the waste I produce by buying in bulk. (2 point)
Packaged products often create large amounts of waste. Buying items that come in one large package or container instead of individual packages and buying large-volume beverages instead small bottles or cans serve to reduce the amount of waste going to landfills.

12. I have conducted a waste audit of my personal trash and recycling to see what items are incorrectly disposed of and what steps can be taken to reduce waste. (3 points)
Knowing what you throw away and recycle can be enlightening. You will see what items are being disposed of and which you have the most of. After your waste audit, you can adjust your purchasing and disposal habits to reduce waste, increase recycling, and minimize improper sorting. Click here to see what is recyclable. Here is an example of a waste audit:

In this example, we see that soiled paper and food should not be in the recycling and metal, clean paper, and plastic should not be in the trash. We also see that there are large quantities of plastics. This person could be more conscious about buying products that create this much plastic waste.
C) Optional Actions: Energy & Water

1. Before I leave for breaks, I unplug my appliances and electronics, close my windows, and turn off the lights. (3 points)

   Many residents forget to take these simple steps before leaving campus, resulting in an unnecessary waste of energy for days or weeks at a time.

2. I plug all my appliances into a power strip and turn it off when not in use. (3 points)

   Many appliances and chargers still draw power even when turned off or not charging. This “vampire electricity” accounts for 5-10% of residential electricity use in developed countries.\(^\text{viii}\)

3. If I have control over my thermostat, I follow the temperature guidelines below. (2 points)

<table>
<thead>
<tr>
<th>Temperature Guidelines...</th>
<th>For heating</th>
<th>For cooling</th>
</tr>
</thead>
<tbody>
<tr>
<td>When you are in your room</td>
<td>68</td>
<td>76</td>
</tr>
<tr>
<td>When out for the day</td>
<td>60</td>
<td>85</td>
</tr>
<tr>
<td>When away for the weekend</td>
<td>55</td>
<td>off</td>
</tr>
</tbody>
</table>

   29% of residential electricity consumption in the U.S. in 2011 is comprised of air conditioning and space heating.\(^\text{ix}\) For every degree you raise the temperature in winter, energy costs climb by 6%.\(^\text{x}\) Consider layering to stay comfortable rather than primarily relying on your thermostat.

4. I turn off the lights in unused spaces when others forget (2 points).

   Lights, especially incandescent bulbs, use energy and emit heat. Leaving four standard 60 watt bulbs on for 10 hours overnight uses enough energy to power a flat-screen TV for 20 hours.\(^\text{x}\)

5. I use the GreenVote app to make Penn buildings more energy efficient and comfortable.
   - I use GreenVote once a week or more (3 points)
   - I use GreenVote at least once a month (2 points)

   GreenVote is a web and mobile feedback platform that gathers valuable information about occupant comfort (including lighting, temperature and air quality) in Penn buildings. Building managers can then use this data to optimize the efficiency of the building and the comfort of the occupants.

6. I use the power management settings on my computer to reduce my electricity consumption. (1 point)

   By customizing your computer’s energy settings to dim the display and enter sleep mode sooner, you can improve your battery life and consume less energy.

7. I do not have a mini fridge in my room. (3 points)

   Of all resident appliances, mini fridges consume by far the most electricity. Think about using a shared refrigerator in a common space or give it up altogether. If a mini fridge is necessary, then make sure you purchase an Energy Star rated appliance.
8. I take the stairs instead of the elevator (if possible). (1 point)
   Taking the stairs saves electricity, which in turn, reduces your carbon footprint. It is also good for your health.

9. I use a drying rack instead of a machine dryer to dry my laundry. (3 points)
   According to the EPA, washing and drying clothes is one of the most energy intensive chores in a household. Air-drying laundry saves energy and also helps clothes last longer.\textsuperscript{xii}

10. I use the cold water (aka “Bright Colors” or “Delicates”) setting on the washing machine. (2 points)
    Cold water cleans your clothes just as well, but uses much less energy because the water doesn’t need to be heated. Heating the water accounts for 90% of a washing machine’s energy usage per cycle.\textsuperscript{xiii}

11. I wait until I have a full load of laundry before washing my clothes. (2 points)
    Average washing machines use about 41 gallons per load regardless of the load size, and are not made to wash only a few pieces of laundry at a time\textsuperscript{xiv}. By only washing full loads of laundry, you not only save hundreds of gallons of water each year, but also prevent the machines from breaking down.

12. I turn off the faucet when brushing my teeth and/or washing my face. (1 point)
    A bathroom faucet generally runs at two gallons of water per minute. By turning off the tap while brushing your teeth, washing your face, or shaving, a person can save more than 200 gallons of water per month.\textsuperscript{xv}

13. I take shorter showers to conserve both water and the energy required to heat that water.
    - I take showers that are 5 minutes or less. (3 points)
    - I take showers that are 7 minutes or less. (1 point)
    By making your showers 5 minutes shorter every day, you can reduce your yearly water consumption by over 2700 gallons.\textsuperscript{xvi}

14. During cold weather, I open the blinds during the day and close the blinds at night. (1 point)
    Sun can warm a room during the day, but the room’s heat can easily escape through windows. Blinds act as another layer of insulation; so by closing the blinds at night, more heat accumulated throughout the day can be trapped inside.

D) Optional Actions: Transportation

1. I use a car-sharing service instead of owning a personal vehicle (eg. Enterprise CarShare and ZipCar). (3 points)
   Using a car-sharing service minimizes the number of vehicles in the city, which reduces idling and parking congestion, and provides an affordable alternative to owning a car. Click here to learn why car sharing is great for college students.
2. I take public transportation when going somewhere not accessible via walking or biking. (2 points)
   Taking public transportation reduces the number of vehicles on the road—lowering traffic congestion and noise and improving air quality. The SEPTA system has subway and trolley lines, bus routes, and regional rail services that can take you anywhere—Center City, the airport, and even New Jersey. For more information about SEPTA fares and routes, click here.

3. I use a bicycle to get around as an alternative to using a motorized vehicle. (2 points)
   Riding a bike is an efficient alternative to walking, but does not emit carbon emissions as motorized vehicles do. There are many bicycle vendors on campus. Penn’s very own PennCycle offers a variety of plans that make using a bicycle easy and affordable. You can check out Philly’s extensive bike lane system going from campus to Center City here. Be sure to review safety tips and University policies here.

4. I walk to places that would normally require motorized transit in order to avoid producing carbon emissions (2 points).
   Walking as opposed to driving, taking a taxi, or taking public transit is good for you (your health and your wallet) and the environment. Choose to get from place to place without emitting harmful greenhouse gases. Click here to learn more about the Walking Escort Service, offered 24/7 by Penn’s Division of Public Safety.

E) Optional Actions: Purchasing

1. I use printer paper with post-consumer recycled content. (2 points)
   Paper containing a percentage of post-consumer content and/or Forest Stewardship Council (FSC) certified paper can be readily found at stores selling office supplies. Look for the following logos:

2. I purchase products with a high percentage of recycled-content material (such as paper towels, tissues, notebooks etc.). (2 points)
   By purchasing recycled-content products, you can help reduce the demand for virgin materials. Items ranging from paper to t-shirts to furniture often have widely available alternatives with high percentages of recycled-content.

3. I buy locally by shopping at farmers’ markets or choosing locally-grown foods at the grocery store. (2 points)
   Support your local economy and reduce carbon emissions caused by food transportation by purchasing locally-grown foods. On Wednesdays, visit the farmers’ market outside of the Penn Bookstore (it accepts Dining Dollars!). On Saturdays and Thursdays, visit the Clark Park farmers’ market. Year-round local foods are available for sale at Mariposa Co-Op, 4824 Baltimore Avenue.

4. I buy foods that have been certified organic. (2 points)
   Purchasing organic foods helps mitigate the impacts of conventional farming practices, such as the depletion of biodiversity, the reduction in soil quality, and the use of toxic fertilizers and pesticides. Visit Trader Joe’s, Whole Foods, Fresh Grocer, or certain farmer’s markets for organic food options for organic food options.
5. I seek out restaurants, food establishments, and eateries that serve local, organic, or sustainable foods. (2 points)
   
   University City offers many options for sustainable food choices including Sweet Green, Picnic, White Dog Café, Honest Tom’s Taco Shop and more. Visit Penn’s Green Acorn website for recommendations.

6. I am vegetarian, vegan, or make an effort to reduce the amount of meat and dairy I eat.
   - I am a vegan (4 points)
   - I am a vegetarian (3 points)
   - I make an effort to reduce the amount of meat and dairy I eat (1 point)
   
   Adopting a vegan, vegetarian, or reduced-animal-product diet can have a major impact on the environment. If every American ate just one meatless meal per week, the carbon dioxide savings would be equivalent to taking half a million cars off the road annually.\textsuperscript{xviii}

7. I purchase environmentally-friendly cleaning products to reduce the use of toxic materials. (2 points)
   
   Environmentally friendly cleaning products are less toxic, promote better indoor air quality, and use less energy in their production.\textsuperscript{xix} Look for brands including Seventh Generation and EO Products, found in most stores alongside conventional cleaning products.

8. I purchase organic or natural toiletries. (3 points)
   
   Many toiletries (including shampoos and cosmetics) consist largely of petrochemical ingredients, which are derivatives of natural gas or oil. Purchasing natural/organic toiletries can help you reduce your use of non-renewable fossil fuels and keep potential toxins from going down the drain. Look for brands including Desert Essence, Dr. Broner’s, and EO Products.

9. I often shop at stores (like Goodwill and Second Mile) or on websites (Etsy, Craigslist, ebay Green etc.) that sell second-hand products rather than purchasing new belongings. (2 points)
   
   Buying second-hand products helps eliminate waste going to landfills and reduces the need to manufacture new products requiring extraction and virgin materials. Consider purchasing used products from local second-hand or thrift stores.

F) Optional Actions: Involvement at Penn

1. I know who my building’s Eco-Reps are and know how to contact them with ideas, questions, and comments regarding sustainability initiatives at Penn. (2 points)
   
   Find out who your Eco-Reps are on the College House Eco-Rep website. Eco-Reps are a valuable resource for living more sustainably, and always welcome new ideas for engaging your community.
2. I am a member of an environmental club or have volunteered for an environmental activity.
   - I am a member of an environmental club. (2 points)
   - I have volunteered for an environmental activity. (1 point)

   Note: If you volunteered for an environmental activity as part of an environmental club that you are in, please only count the points for the club (2 points). If you are part of an environmental club and you also volunteered for an environmental activity unaffiliated with the club, you may receive points for the club and the activity (3 points total).

   There are more than 15 different environmental groups on campus focusing on various environmental issues (such as green living, renewable energy, and advocacy). To find one that interests you, visit the Student Groups page on Penn’s Green Campus Partnership website.

3. I “Like” the Penn Green Campus Partnership page on Facebook. (1 point)

   Stay up to date on Penn’s sustainability news and initiatives by liking the Green Campus Partnership Facebook page.

4. I am subscribed to Penn’s Green Campus Partnership e-newsletter. (2 points)

   Sign up for the Penn Green Campus Partnership e-newsletter “The Red & Blue on College Green.” The online newsletter comes out every other month with stories about the latest sustainability topics on campus. Sign up here!

5. I have applied for and/or received a Green Fund grant for a sustainability project on campus.
   - I have received a Green Fund grant. (5 points)
   - I applied for a Green Fund grant (but did not receive a grant). (3 points)

   Penn’s Green Fund is a sustainability grant fund open to students, staff, and faculty. The Green Fund Review Board looks for projects that demonstrate environmental innovation and those that conserve resources for the University. Visit the Green Fund webpage for more details.

6. I have taken an environmentally-focused course or am enrolled in a sustainability major, minor, or concentration.
   - I’m enrolled in an environmentally-focused major, minor, or concentration (4 points)
   - I have taken at least one environmentally-focused course (2 points)

   Penn offers many different environmentally-focused classes, majors, and minors in all schools. You can search Penn’s course catalog with the keyword “sustainability” or download the Sustainability Course Inventory from the Penn Green Campus Partnership website.

G) Other Sustainable Lifestyle Choice(s)

If there is another environmentally sustainable lifestyle choice you make that does not appear on this list, please tell us on the online application. We will review any additional choices and consider granting extra points.
I) References

iii  http://www.eia.gov/tools/faqs/faq.cfm?id=99&t=3
iv  http://www.epa.gov/osw/conserve/materials/plastics.html#facts
vi  http://pacinist.org/publication/bottled-water-and-energy-a-fact-sheet/
vii  https://www.scgov.net/GreeningPreschool/Pages/PreschoolCleaning.aspx
viii  http://standby.lbl.gov/faq.html
ix  http://www.eia.gov/energyexplained/index.cfm?page=electricity_use
xii  http://www.epa.gov/greenhomes/Basement.htm
xiii  http://www.epa.gov/greenhomes/Basement.htm
xiv  http://www.epa.gov/greenhomes/Basement.htm
xv  http://www.epa.gov/watersense/pubs/indoor.html
xvi  http://epa.gov/WaterSense/products/showerheads.html
xviii  http://www.peta.org/issues/animals-used-for-food/meat-and-environment.aspx
xix  http://www.epa.gov/epp/pubs/cleaning.htm#why