

RETRIEVER'S GUIDE TO LIVING SUSTAINABLY

**OFFICE OF SUSTAINABILITY
UNIVERSITY OF MARYLAND BALTIMORE COUNTY**

2021 EDITION



Welcome to UMBC!

At UMBC sustainability is more than just “going green.” For us, sustainability is about considering the complexity and integration of natural, human, and social systems that maintain our thriving world.

We’ve prepared this guide because everyone is affected by the decisions each of us makes every day. We want you to have the resources to get involved.

This guide contains information that will be useful to you during your entire stay at UMBC so check it out and keep it handy. Enjoy!



Office of Sustainability's Mission

UMBC's Office of Sustainability collaborates across campus to effectively catalyze and implement sustainable practices and strategies. We serve as a resource to the campus community to empower every member of the campus community to investigate, experience, and share in our sustainability journey. We encourage our campus to serve as a model for integrated environmentally responsible practices, generated through collaboration, innovation, and shared governance. We work to support our campus in reducing our collective environmental impact while creating and maintaining a healthy and just environment for all, today and into the future.

What's your role in sustainability at UMBC?

LEAD: Every action matters! From turning off the lights when you leave a room to conducting research on a sustainability topic - they all have an impact.

INQUIRE: Ask questions and develop new ideas! New initiatives are started every year by students just like YOU.

SHARE: Engage your freinds, family, and peers about the sustainability topics that matter most to you.

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CARBON NEUTRAL CAMPUS

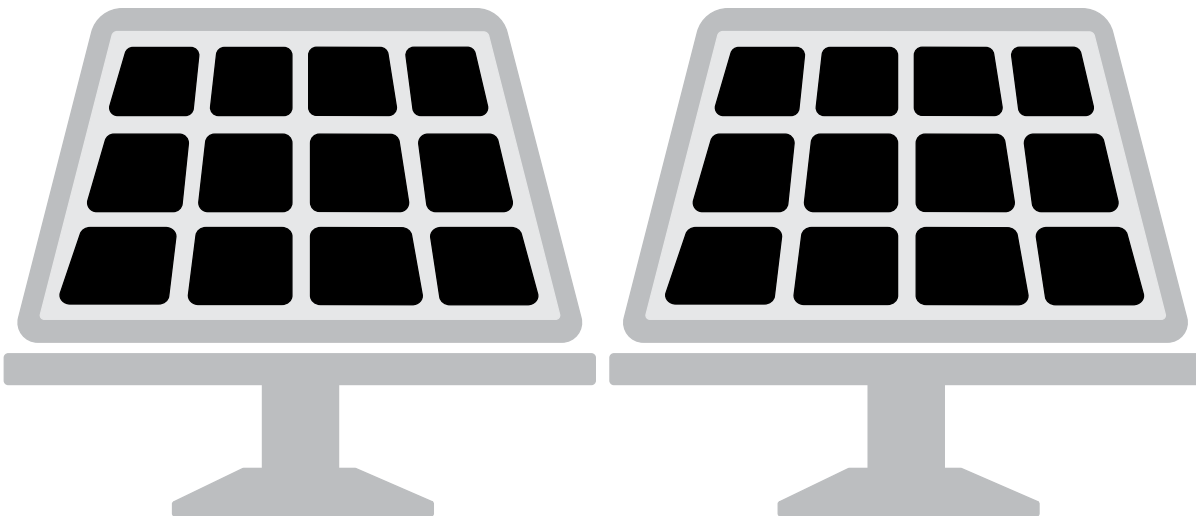
#GOALS

100% carbon neutral by 2050

UMBC understands that as a large institution we have a responsibility conserve the resources we use and be part of the solution to our current climate crisis. This can be reflected in our goals and actions. UMBC's Climate Action Plan (CAP) provides a road map for a continuous reduction of UMBC's greenhouse gas (GHG) emissions.

What have we accomplished so far?

- 38% of our energy comes from renewables
- 20% GHG emission reduction to date
- 5 green roofs on campus
- 4 LEED certified buildings built
- 19 vehicle electric charging stations installed
- Go to cap.umbc.edu for the full plan



CAMPUS TOOLS



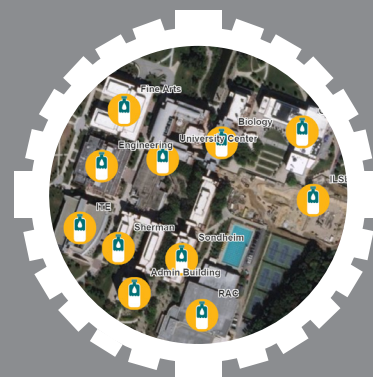
Data Dashboard:

Our dashboard serves as a data repository for many of the most commonly used metrics related to sustainability and climate action on campus. You can view, and download, UMBC's data and information about energy, water, greenhouse gas emissions, and waste generation/diversion.



Green Buildings Virtual Tour:

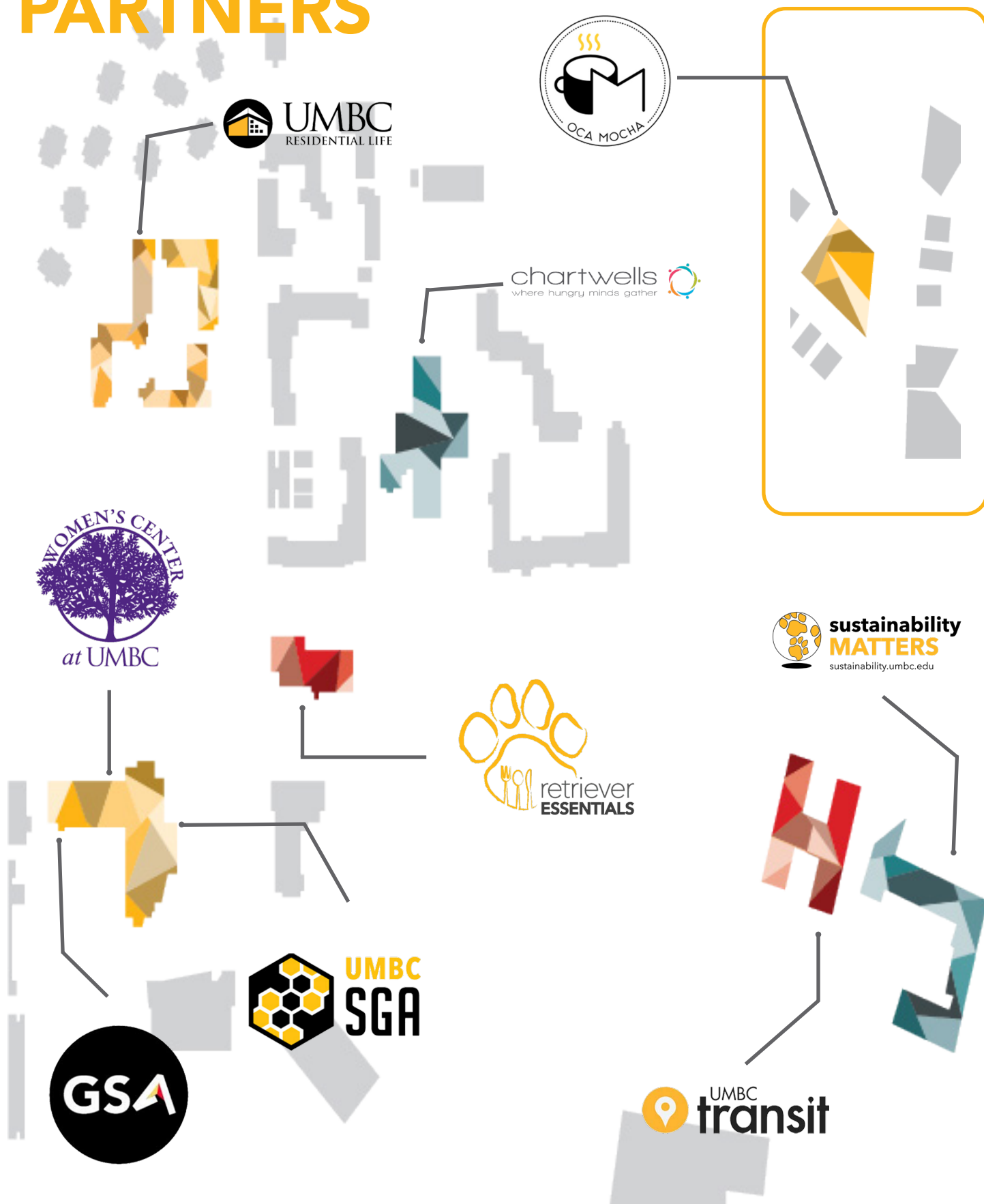
Have you ever wondered what makes a building "green?" We invite you to go on a behind the scenes tour of our campus' greenest buildings. Learn what to look for next time your in one of these buildings - from the obvious features like bottle filling stations to the more subtle one's such as high efficiency HVAC, lighting, and plumbing.



UMBC Sustainability Retriever Map:

Explore the many different sustainable aspects of our campus. Each map provides locations, descriptions, and links about unique features at UMBC. Examples of information include: green roof locations, compost collection, hiking trails, environmental art, real-time air quality, bottle filling stations, and much more!

OUR CAMPUS PARTNERS



HOW TO LIVE ENGAGE EXPLORE

QUICK FACTS

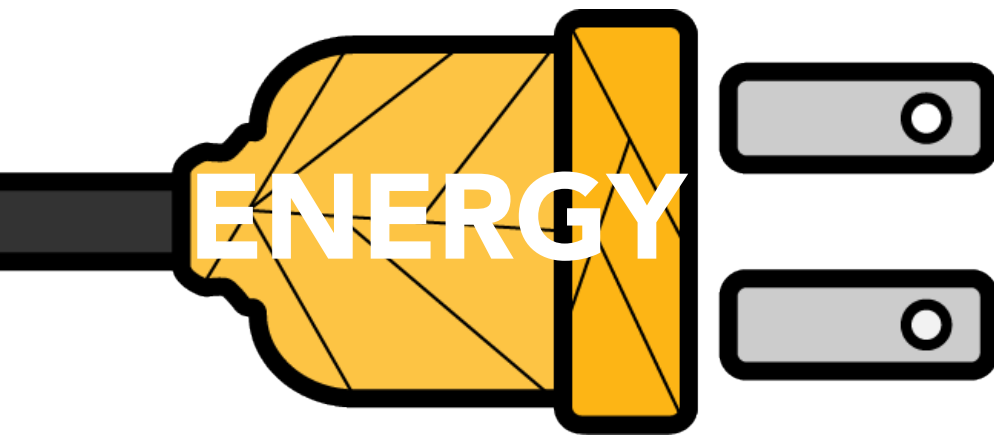
Composting is Available in the Commons

Discounted MTA Passes are Available to All Students

Pataspco Hall is LEED Certified

+130 classes that study sustainability topics

LIVE



When people think of sustainable energy an image of solar panels and wind farms comes to mind. However, the greenest kilowatt is not from wind or solar. The greenest kilowatt is not generated at all; it is the kilowatt that is no longer needed due to conservation efforts. Electrical energy makes up about 34% of UMBC's carbon footprint. We have been able to reduce electricity use with building upgrades and efficiency projects, but with a growing campus everyone's help is necessary to reduce energy!

ENERGY CONSERVATION 101

Almost everything we do in our households requires energy, but not all electronics or appliances are created equal. Certain amenities use more energy than others. Listed below are residential amenities along with the average percentage of energy used and energy saving tips.

*percentages are based on the [average US home](#) and may vary due to multiple factors

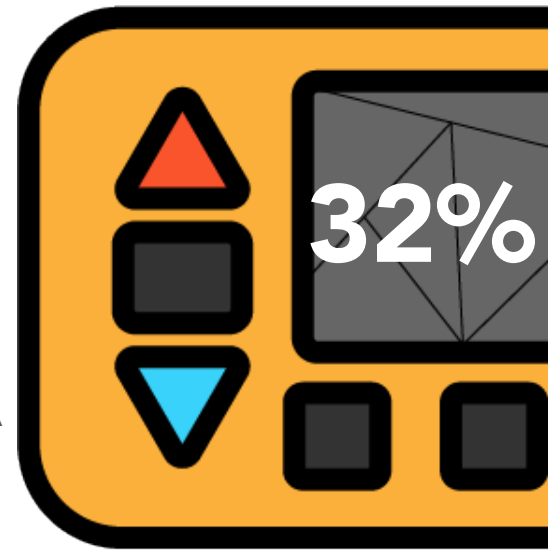
1 Air Conditioning & Heating:

Fall & Winter Energy-Saving Tips

- Open blinds to allow the sunlight to naturally heat your room during the day.
- When you are home and awake, set your thermostat to 68°-70° F, lower it when you are asleep.
- Work with your roommates to understand your schedules. Find a time when you all are out of the apartment and lower the thermostat back 10° to 15° F.

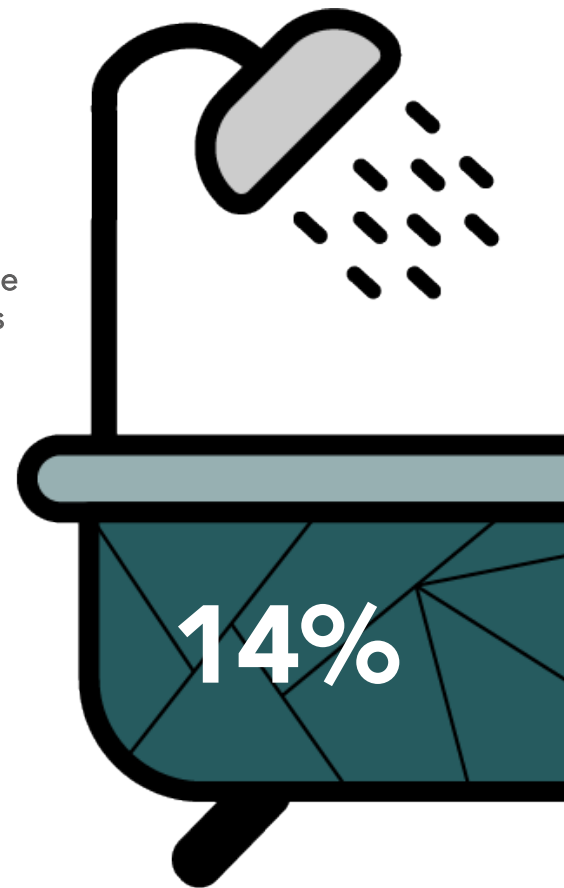
Spring & Summer Energy Saving Tips

- Lower or turn off the AC at night. Use fans or natural ventilation (i.e. open the window) to cool your space. A fan can make it feel 4° F cooler and uses significantly less energy!
- When you are home and awake set the thermostat to around 78° F.
- Avoid allowing direct sunlight into your dorm/apartment because it will heat it up.



2 Hot Water Heater:

- Always wash your clothes in cold water. This shrinks the energy use of a washing machine by 90% and reduces the wear and tear on your clothes!
- Reduce your shower time.
- Don't let the tap run, especially when washing the dishes with hot water.
- Use a cold rinse cycle when using a dishwasher.



3 Appliances:

Cooking Appliances (2.5%)

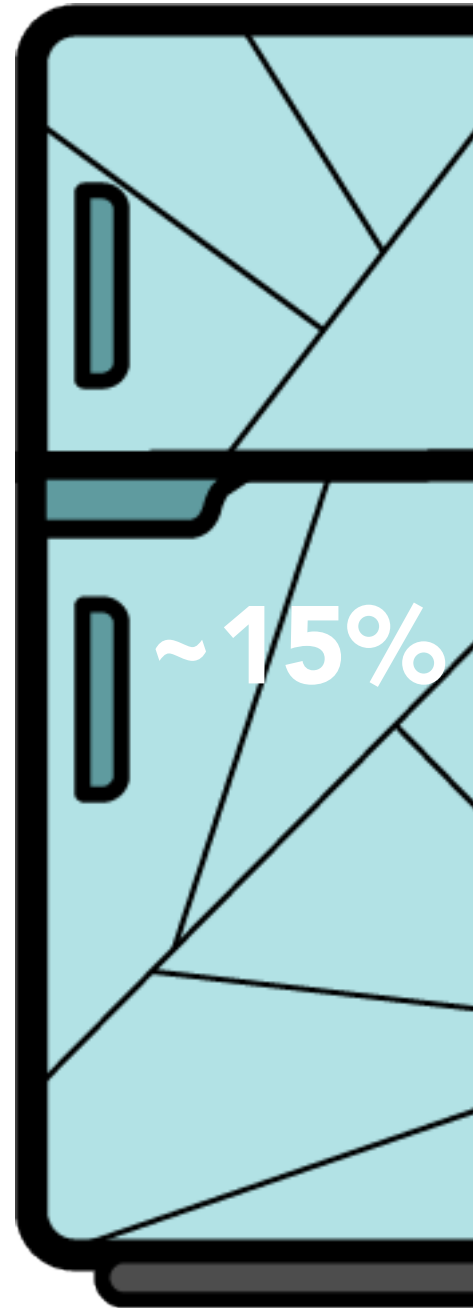
- Keep countertop appliances like coffee makers and microwaves unplugged when not in use. These appliances pull energy while not in use and plugged in.
- Use a toaster oven or air fryer to cook smaller meals. These smaller appliances use half as much energy as a full sized oven.
- Keep your electric range top stove clean. The stove will reflect the heat better, and save energy.

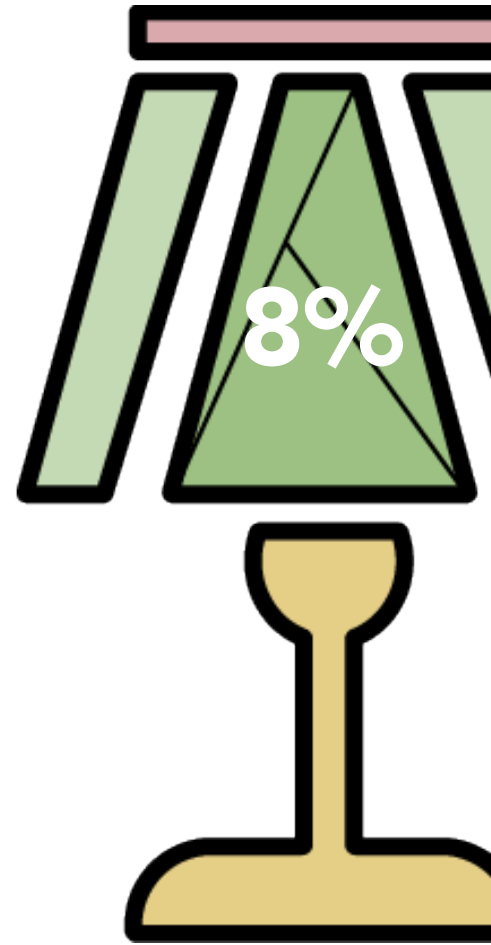
Refrigerator (7%)

- Do not keep your refrigerator or freezer too cold. The recommended temperatures are 35°-38° F for fresh food and 0° F for a freezer.
- Cover liquids and wrap foods stored in the fridge. Uncovered foods cause an increase in moisture which results in the compressor working harder.
- Only allow a ¼ inch of frost build up in your freezer. Frost build up decreases the energy efficiency of the unit.
- Try to have one large common fridge without excess minifridges in student apartments. If you live in one of the Halls, save money and energy by renting an energy efficient minifridge through [Residential Life](#)

Dryer (4.5%)

- Use the automatic cycle instead of timed drying. The auto cycle will stop based on the moisture sensor and avoid over drying.
- Place a dry towel with your wet clothes for a faster drying time.
- Use reusable wool dryer balls to decrease static and increase efficiency. The dryer ball will help separate your clothes and get more air to them.



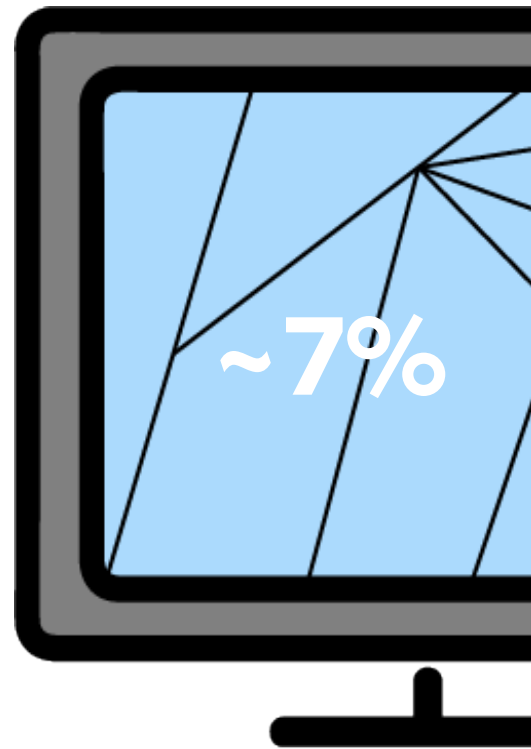


4 Lighting:

- Always flip the switch when leaving a room.
- For personal lighting always choose an LED bulb. LEDs use only 20-25% of the energy and last 10 times longer than incandescents.

5 Electronics:

- Have all your electronics on a powerstrip with an on/off switch. This will allow you to turn off everything in one easy step and your devices will not pull 'vampire energy'. Most electronics pull energy while plugged in and turned off. Turning off that power source eliminates wasted energy.
- Use power management settings to reduce energy use on your PC or laptop. For more information about energy efficient power management for your computer look at these [Energy Star tips](#).
- Never use a screensaver for your PC monitors! Certain screensavers can cause your computer to burn twice as much energy and can prevent it from entering sleep mode.





Food production makes up a quarter of the globe's greenhouse gas emissions. One key solution to climate change is building sustainable food systems, which starts with you! Below are some key tips to eating more sustainably on campus and off:

QUICK TIPS

1 Reduce Food Waste:

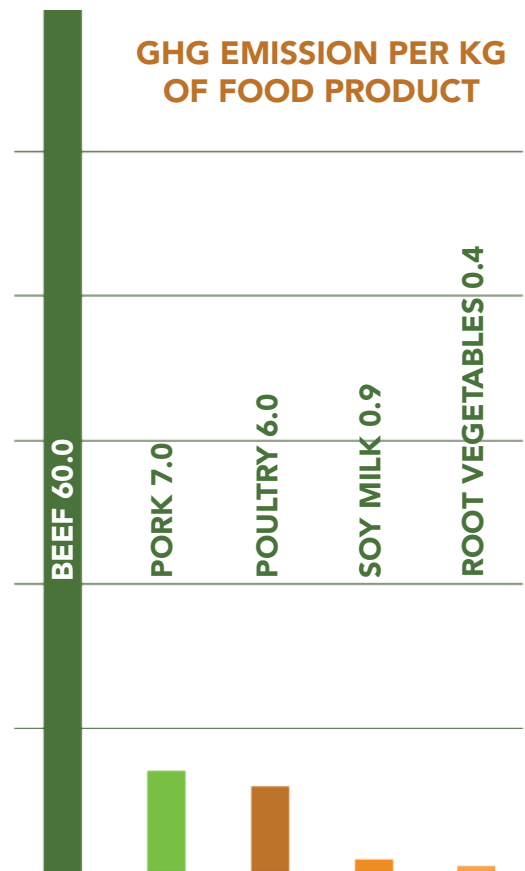
All the delicious food at True Grits can be enticing, so it is hard not to load up your plate. However, it is important to not take more than you need. Try taking multiple trips with small amounts of food on your plate, instead of grabbing large portions you can't finish.

Try an Ozzi O2GO container: Do you ever find yourself up late studying and hunger hits? True Grits has a late-night menu option, which you can enjoy zero-waste style with an O2GO container. The Ozzi system provides reusable O2GO containers that are a sustainable alternative to disposable ones. They are available for a one-time purchase of \$5.00 to be used for True Grits Late Night menu.

Plan your meals: Meal prepping is a plan that helps you cook 3-5 days worth of meals, so you have ready to go meals throughout the week. Meal prepping helps reduce food waste and saves you money. Check out the [NRDC's online Meal Prep Mate](#) to help you get started!

2 Eat Less Meat:

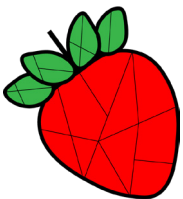
In particular, reducing the amount of beef you eat can have an extensive impact on reducing your carbon footprint. Try excluding meat from your diet just once a week. Look up quick vegetarian meal prep recipes or check out the [vegan and vegetarian options](#) UMBC dining has to offer!



3 Choose Organic (when you can):

We understand that buying organic can be more expensive. Try prioritizing which products you purchase organic by using the Dirty Dozen list - the non-organic fruits and vegetables that are the highest in pesticide residue.

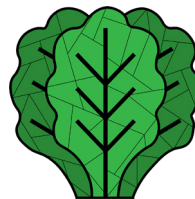
1. Strawberries



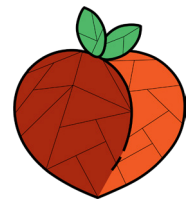
2. Spinach



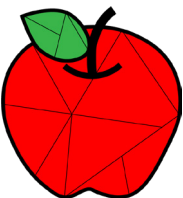
6. Kale



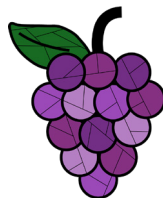
7. Nectarines



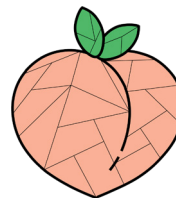
4. Apples



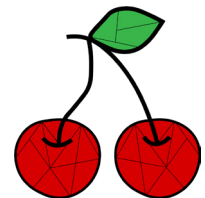
5. Grapes



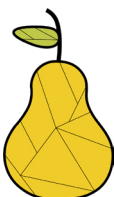
6. Peaches



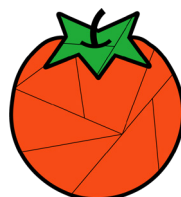
7. Cherries



4. Pears



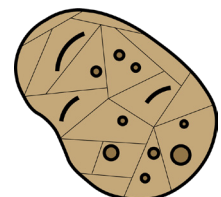
5. Tomatoes



6. Celery



7. Potatoes



4

Support Your Fellow Retrievers with Save-a-Swipe:

Do you ever end the semester with extra unused meal swipes? Did you know you have an opportunity to put those wasted swipes to good use?! At the beginning of each semester students can donate meal swipes to other students at UMBC who have been identified as food insecure. For more information about how to donate meals or if you are in need of food assistance check out [Retriever Essentials](#) for more information.

5

Buy Local:

Buy fresh produce, local art, and much more at the local farmers' markets and co-ops near UMBC. When you buy local it means less greenhouse gas emissions and supporting the local economy. For up to date information on local farmers' markets in Maryland check out visitmaryland.org

Farmer's Market's Near Campus:

Catonsville Farmers Market:

The Christian Temple, 5820 Edmondson Ave., Baltimore, MD
Wednesday: 8 am - 12 pm, 6 May to 25 Nov
FMNP, SNAP, eWIC, Matching Money

Catonsville Sunday Farmers Market

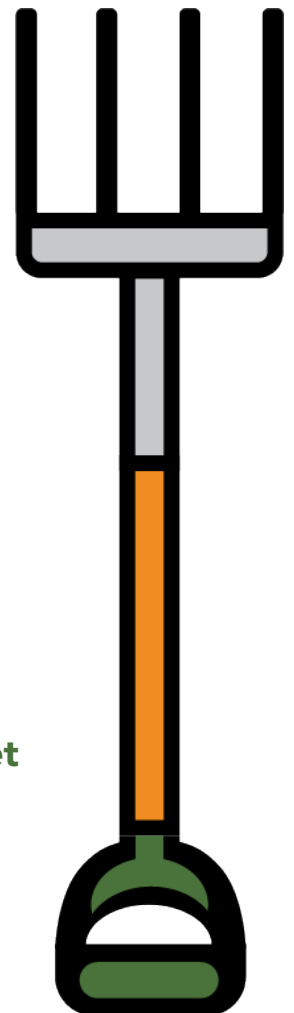
15 Mellor Avenue, Catonsville, MD 21228
Sunday: 9 am - 12:30 pm, 3 May to 22 Nov

Pikesville Farmers Market

1700 Reisterstown Road, Pikesville, MD 21208
Tuesday: 2 pm - 6 pm, 5 May to 27 Oct
FMNP, Matching Money

Baltimore Museum of Industry (BMI) Farmers Market

1415 Key Highway, Baltimore, MD 21230
Saturday: 9 am - 1 pm, 16 May to 28 Nov
FMNP

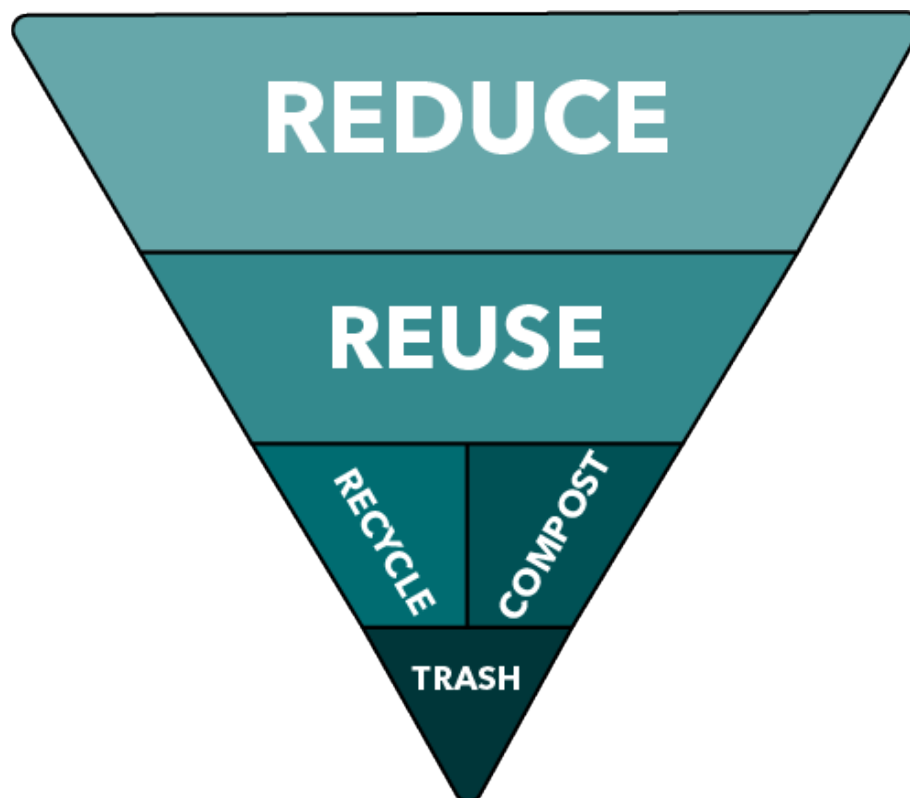




When we start to think about all the waste we create on a daily basis it can get overwhelming. Every product we purchase is made to be thrown out. As consumers, we have the ultimate power to reduce the amount of waste we produce one small step at a time.

Ultimate Guide to a Zero-Waste Life

What is Zero-Waste? It is a goal to personally send as little as we can to the landfill. I am sure you have heard of the 3 R's, reduce, reuse, recycle. Oh and don't forget the one C, compost! When assessing your daily waste you want to try and do four things: reduce your overall waste, reuse as much as possible, and correctly compost and recycle what you can. First and foremost try to prioritize waste reduction because recycling isn't the solution to our waste problems.



1 Reduce:

This can seem like the most difficult thing to do. Think about reducing waste like going to the gym. It is all about incremental changes over time that lead to a change in lifestyle. Rome wasn't built in one day! Below are some simple zero-waste swaps to start off with:

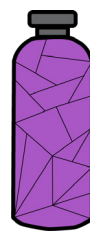
Disposable Beverage Containers



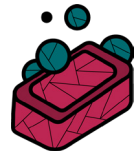
Reusable Alternatives



Shampoo (in a plastic bottle)



Shampoo Bar



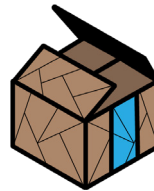
Plastic Bags



Reusable Bags



New Stuff



Just Don't Buy It Unless it Sparks Joy



2 Quick and Easy Zero-Waste DIY's

Skip the plastic and make your own hummus

Needed Ingredients:

Can of chickpeas
Tahini
Fresh lemon juice
Fresh garlic
Splash of salt

Needed appliance:

Blender/food processor

Save money and make your own all-purpose cleaner

Needed Supplies:

- Water
- White vinegar
- Essential oil of your choice to eliminate the smell
- Old all-purpose cleaner bottle to reuse!

And if you are feeling extra adventurous, try out homemade deodorant!

Needed Supplies:

- Baking soda
- Coconut oil
- Essential oil of your choice

3 Buy Secondhand:

Thrifting is better for your pocket book and the environment. Plus you can find one of a kind items! Visit the local thrift stores or consignment shops near UMBC. For used textbooks and furniture search through posts on the [myUMBC Classifieds](#) page.

Thrift Stores Near UMBC:

Finders Keepers:

5404 East Dr, Arbutus, MD 21227

Goodwill

6600 Baltimore National Pike, Catonsville, MD 21228

Antique Depot

3720 Maryland Ave, Ellicott City, MD 21043

Thrifty Collin's

4020 Frederick Ave, Baltimore, MD 21229

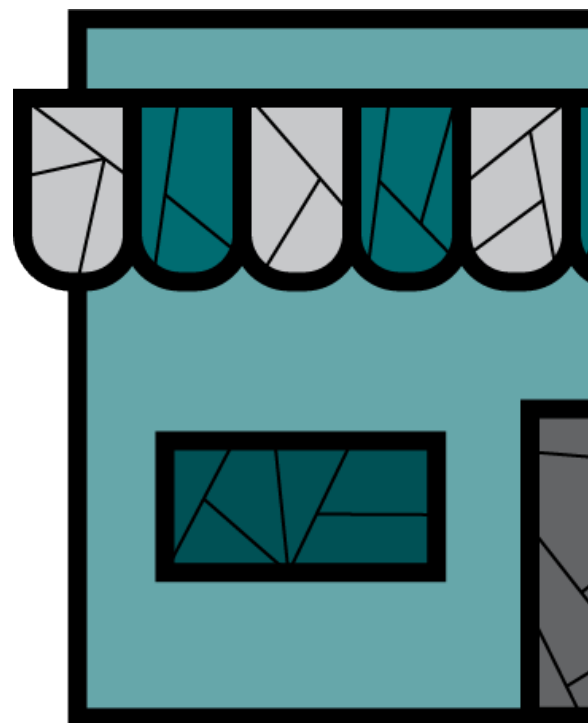
Red Tags

4418 Edmondson Ave, Baltimore, MD 21229

Mustard Seed Thrift

6725 Montgomery Rd, Elkridge, MD 21075

**For used furniture to furnish your first apartment on a budget check out Habitat Restore or Second Chance Inc



RECYCLING & COMPOSTING

FAQs

Can I compost at UMBC?

Yes! UMBC has compost bins located in the commons. These bins are collected and taken to a commercial composting facility. Industrial composting facilities accept pre and post consumer food scraps and bio-degradable disposables.

Can I compost in my university apartment?

Yes, but this process looks a little different and requires effort. When composting at home it is important to only place pre-consumer (plant based) food scraps in your bin. Things like vegetable scraps, fruit peels, or apple cores. You can use a bucket with a lid to hold the scraps, and empty it at least once a week. Drop off your compost at the UMBC community garden which is located adjacent to Lot 8 and behind UMBC Campus Police.

What do I do if I don't know if something is recyclable?

When in doubt, throw it out! High levels of contamination (i.e. trash) ending up in single stream recycling is increasing the cost of recycling. You are actually doing more harm than good when you recycle incorrectly.

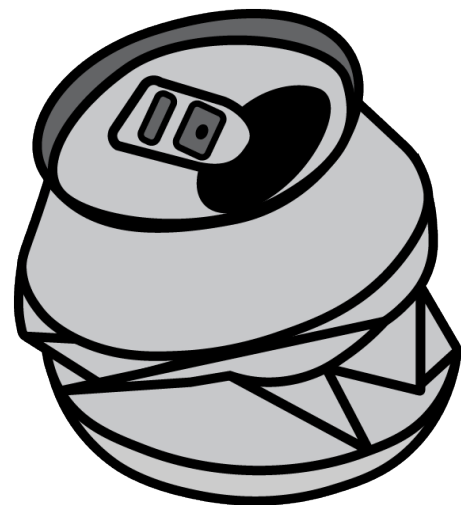
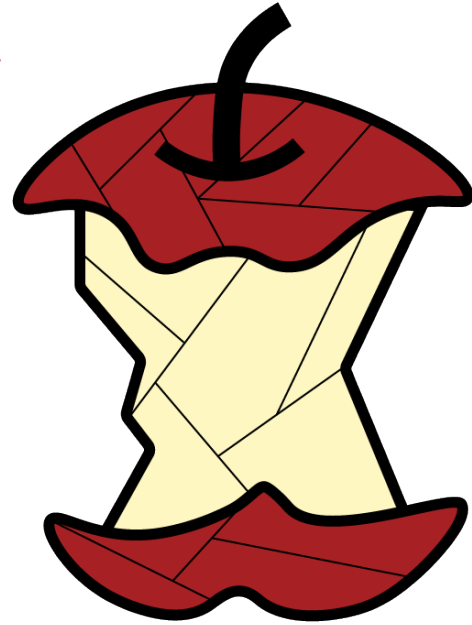
Can I recycle plastic bags or film at UMBC?

Yes! In 2019 UMBC joined the NexTrex Plastic Film Recycling Challenge, and began collecting plastic film to be recycled. Plastic bags and film cannot traditionally be placed in single stream recycling because it ruins sorting machines. Below are the locations of collection bins:

- Facilities Management
- Commons (behind the info desk)
- Apartment Community Center
- Administration Building (First Floor by elevators)
- OCA Mocha

Can I recycle e-waste on campus?

Yes, but UMBC does not have an e-waste collection all year around. However, the Office of Sustainability along with Facilities Management put on an annual e-waste collection event in September and May.



WASTE SORTING IN THE COMMONS

Test your waste sorting skills with our [Waste 101 Quiz!](#)





Transportation generated over 44% of UMBC's GHG emissions, making it the second leading contributor to the university's GHG emissions. Help UMBC reduce its carbon footprint by being a smarter commuter!

Alternatives to Traditional Transportation:

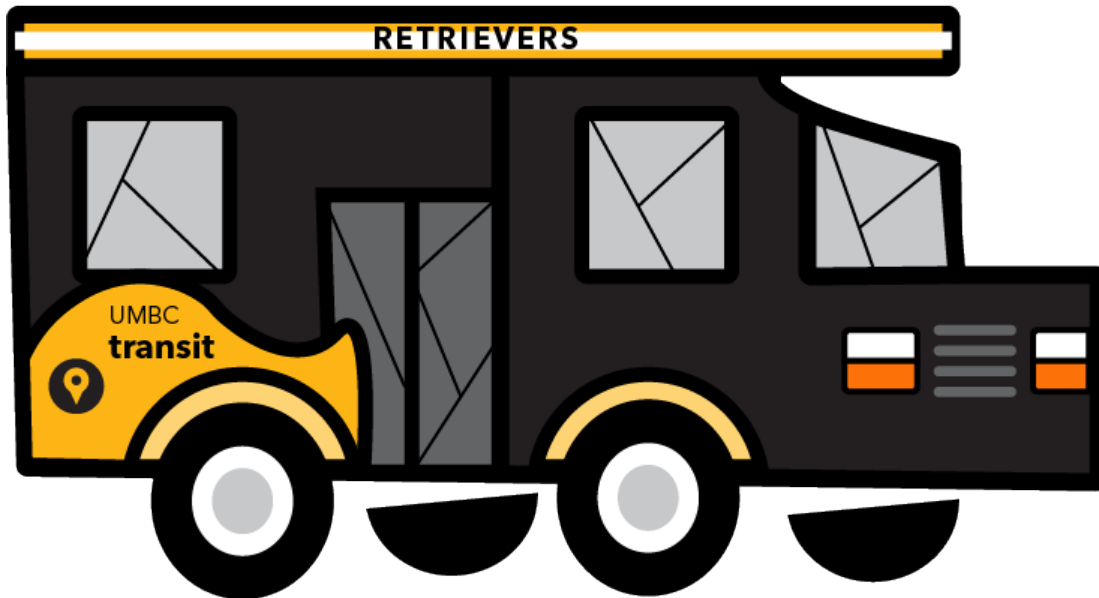
1 Use MTA Public Transit:

There are many different public transportation options that can help you travel to and from campus.

- **Get a discounted MTA pass:** Off-Campus Student Services sells MTA bus passes for a discounted price of \$55.00. The All Access College Transit Pass is valid on MTA Local Bus, Light Rail, and Metro Subway for unlimited use for the entire month. To learn more about how to join this program, visit [MTA's website](#).
- Take the buses that stop at UMBC and connect to the local areas:
 - CityLink Yellow (YW) & Purple (PR)
 - LocalLink 37, 76, & 77
- For trips to DC and Baltimore ride the MARC commuter train. The All Access College Transit Pass does not cover fees for train, for MARC student discounts download the [Student Advantage](#) app.
- Gain access to Baltimore City by using the Light Rail and Metro

2 Shuttle with UMBC Transit:

Are you tired of spending money filling up your tank? Try UMBC's free shuttle system for easy access to train stations, satellite parking, the BWI airport, Catonsville, and Arbutus. Check out [UMBC Transit Tracker](#) for real-time location tracking of the UMBC buses.



3 Carpool with fellow classmates :

Share the ride, save money, and make new friends with Zimride! [Zimride](#) is an online ride-matching service that connects drivers and passengers within a private UMBC network heading to and from similar areas. Carpool often enough and you can qualify for carpool parking in Lot 4!

4 Leave your car at home, and check out a Zipcar!

Looking to run errands, grab groceries, or ditch campus for a long weekend? Zipcar is a convenient and accessible car share program that is available to all students on campus. Visit <http://zipcar.com/umbc> to get started, and get \$10 as a bonus!



5

Bike to and on campus:

Biking is a great way to stay active and be green! With bike racks, bike lockers, and bike racks on UMBC Transit cycling is seamless on campus and off. Check out [Catonsville Rails to Trails](#), Google Maps, [Baltimore County's Bicycle Project](#), and our [UMBC Sustainability Map](#) to map out your route.

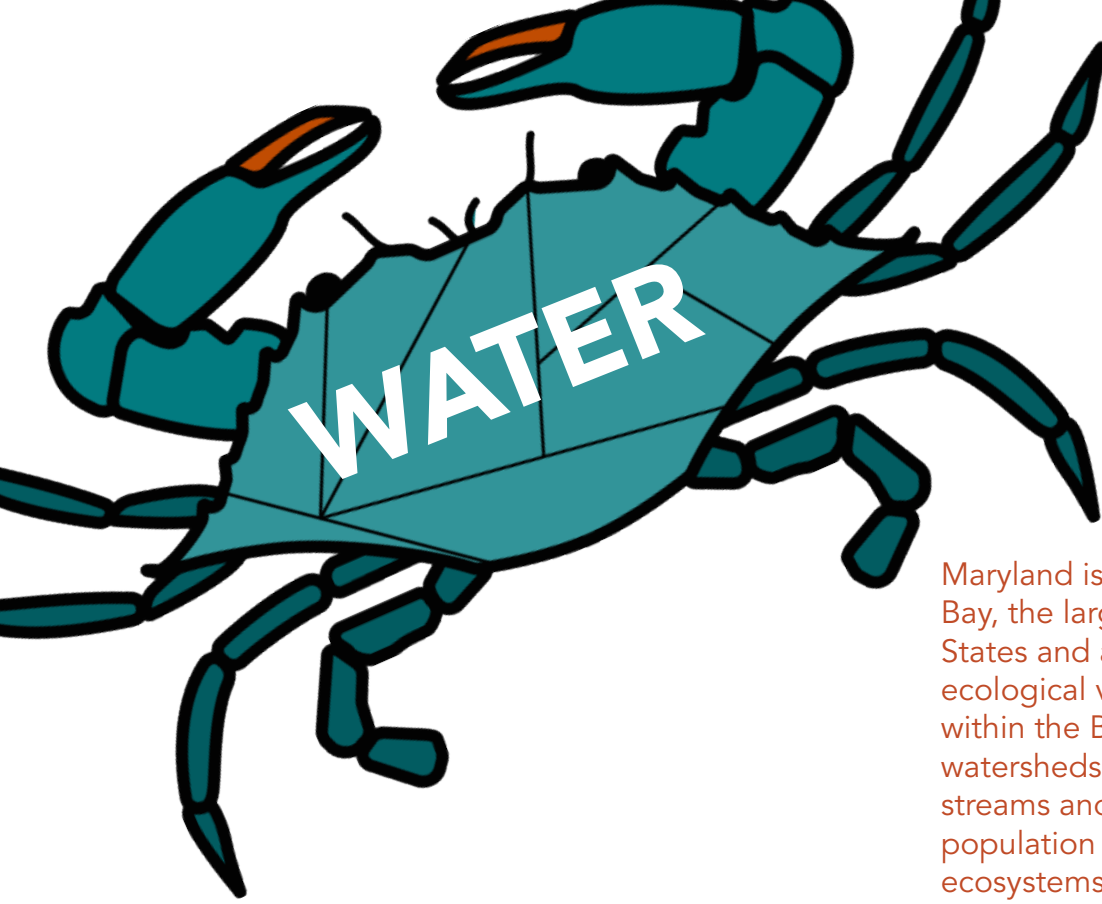
No bike? No problem! [Retriever Fleet](#) is a short-term bike share program at the RAC, which is free to all with an UMBC ID.

Tips and Tricks to Becoming a MTA Transit Pro

Using public transportation can be confusing and scary the first time. Below are some helpful tips to make your first time on public transit as painless as possible.

- Plan your trip! Check the MTA website for transit schedules and download the [Transit app](#) for easy trip planning and real-time arrival information!
- Don't forget your MTA monthly pass, and if you do not have a MTA pass make sure to have exact change when riding MTA buses!
- Always give yourself extra time! When commuting by car we always have to account for traffic, the same is true for public transit.





Maryland is home to the Chesapeake Bay, the largest estuary in the United States and a place of beauty and ecological value. Our campus is located within the Bay and Patapsco River watersheds and is home to our own streams and ponds. Climate Change and population growth are threatening these ecosystems and access to fresh water. Luckily, there are easy steps we can all take to protect and preserve these resources!

HELP CONSERVE

1 Turn Off the Tap:

- When brushing your teeth.
- When lathering your hands in soap.
- Wash the dishes with a partially filled sink, only turning on the water when needed.
- When washing or shaving your face use a partially filled sink. Short bursts of water clean razors.

2 Dish Washers & Washing Machines:

- Only run when you have a full load.
- Use the shortest cycle, they will still get cleaned!

3 Report Leaks:

- Report leaky pipes, facets, or if you hear the toilet running
- If you live on campus submit a work order through [UMBC's Residential Life](#)

4 Reduce Your Time in the Shower:

Time how long it takes you to shower and try to reduce it by 5 minutes. On average a shower uses 5 gallons of water per minute, which means you could save 25 gallons per shower!

5 Consume Less Food & Products with a Large Water Footprint:

Did you know that 89% of freshwater is used to produce food, energy, and products we consume?

Virtual water refers to the water withdrawn to produce products we consume. Items with a large water footprint include meat, dairy, eggs, and clothing. To explore the water footprint of your favorite products use the [Water Footprint Product Gallery](#).

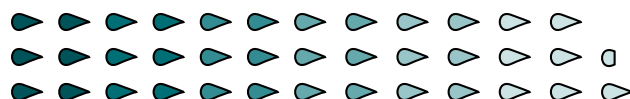
Water Needed to Produce 1 Liter of Different Milks:

Which Milk Has the Smallest Water Footprint?

Dairy Milk: 600 L



Almond Milk: 375 L



Oat Milk: 75 L



ENGAGE

Join a Student Organization

Student organizations are essential to creating a more sustainable future on campus and off. Sustainability is so wide reaching there is bound to be a club that aligns with your passions. From growing your own food, advocating for racial equity, or reducing waste on campus, student organizations are continuing to build the foundation to a brighter future.

Black Lives Matter
Charm City Connections
Circle K International
Engineers Without Borders
Environmental Task Force (ETF)
Food Recovery Network
Global Brigades
Green Peace
LGBTQ Student Union
Queer and Trans People of Color Community (QPOC)
Retriever Immigrants United
Students for Environmental Awareness (SEA)
Students Helping Honduras
The Garden
The REACH Initiative
UNICEF
Vegan Club
We Believe You
Women Involved in Learning & Leadership (WILL)
Young Democratic Socialists of America (YDSA)

And many more....make sure to check out Involvement Fest at the beginning of the Fall and Spring Semester to keep an eye out for all the clubs on campus.



Attend Sustainability Events

HARVESTFEST



The fall harvest is a time for celebration around sustainability and community! Each October, Main Street at the Commons comes alive with sustainability themed fun, games, workshops, and prizes!

Come learn about sustainability on campus and receive information offered by UMBC's many organizations and departments relating to sustainability programs and initiatives on campus.

ECOFEST



Each spring, our campus gathers to celebrate the week of Earth Day. Eco-Fest kicks off with a major festival on the quad with food, music, games, and many resources for going green.

Following the celebration on the quad is a weeklong series of events for learning more about many different things related to sustainability and the environment – there is something for everyone!



To stay up to date with all the sustainability events happening on campus by exploring our [Sustainability Calendar](#) or follow [Sustainability Matters](#) on myUMBC.

Use Your Voice by....

Voting

Vote in national, state, local....and most importantly UMBC student governance elections! Talk to an SGA official during their [office hours](#) to learn more information or offer suggestions. Members of SGA are always looking for help on new initiatives.



Joining a Sustainability Working Group

Did you know that UMBC has a Climate Action Steering Committee (CASC)? CASC is a group of staff, faculty, and students tasked with facilitating UMBC's Climate Action Plan. It is made up of 6 working groups: Energy, Transportation, Waste, Academics, Resiliency, and Landscape. If you are interested in joining one of these groups email sustainability@umbc.edu

Hosting an Event in your Residential Community

All students living on campus have an opportunity to apply for a Student-Led Initiative Programming Grant through student housing. If you have an idea for a sustainability themed event for your community submit an [application](#) and receive funding!



Gain Professional Sustainability Experience

Eco-Ambassadors

Each fall the Office of Sustainability hires 5-8 undergraduates to work alongside us as Eco-Ambassadors! These dedicated student leaders come from diverse backgrounds and work as team to promote sustainability on campus.

The Eco-Ambassadors help to engage and educate the campus community about environmental issues while they gain valuable technical skills and have access to what sustainability looks like behind the scenes!

Some recent projects that our Eco-Ambassadors led include establishing an eco-coalition of all the environmentally focused groups on campus, working closely with Residence Life to expand composting on campus, and they even helped to design this guide!

EXPLORE

UMBC has an extensive record of creating unique learning opportunities related to many sustainability topics. Our key research themes comprise Environmental Sciences and Engineering, especially teacher teaching students with equations on a window in a lab Atmospheric Physics, Remote Sensing and Contaminant Remediation; Life Sciences & Biotechnology, including Marine Biotechnology and Health Sciences; as well as Health Equity, Policy Studies, and Public Humanities and Art. These educational and research hubs, collaborate with various partners, to focus on issues related to sustainability and climate change ranging in scale from local to global. At UMBC, We recognize that the study of climate, and more broadly sustainability, presents an interdisciplinary opportunity for students and faculty to incorporate environmental literacy into their disciplines.



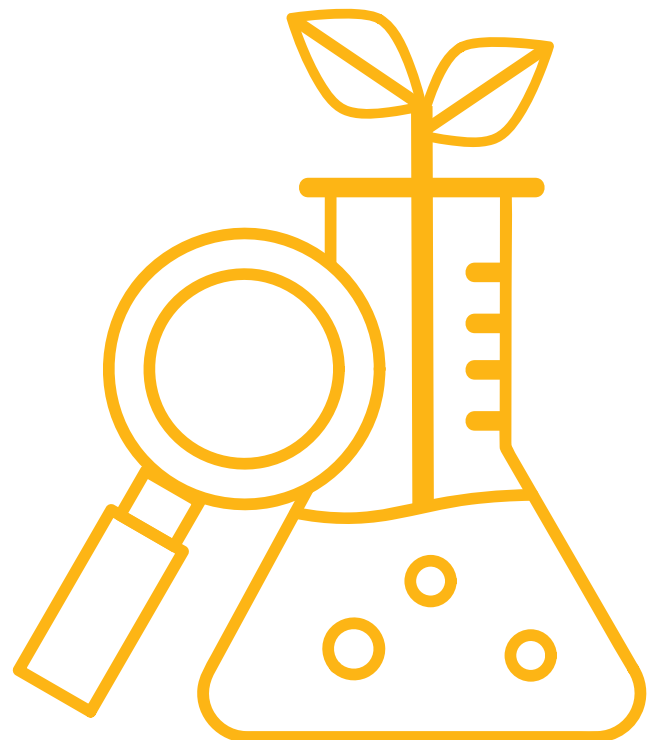
Research

Joint Center for Earth Systems Technology (JCET) is a working partnership with NASA to study natural sciences and global-scale climate change.

Baltimore Ecosystem Study offers our community with an opportunity to participate in fieldwork in research working on a U.S. Long-term Ecological Research site.

United States Geological Survey – Water Science Center, based at UMBC, provides scholarship opportunities related to regional waterways.

Center for Urban Environmental Research & Education (CUERE) provides opportunities to incorporate valuable climate research into the education of the next generation of thinkers by working with K-12 education.



Classes

You can always find relationships between your academic interests and sustainability! **UMBC has over 130 sustainability related classes.** Over half of the academic departments offer courses that study sustainability topics!

Nature On Campus

UMBC is home to some beautiful natural areas. It is important while you are here to take a break from studying and explore the local wildlife on campus.

CERA

One of the most lush areas on campus is the Conservation and Environmental Research Area (CERA), which is a 50 acre protected natural area. UMBC thoughtfully set aside this space to remain forested even with the expansion of campus. CERA is now used every semester as a living lab for professors and students alike. Explore CERA with the [Interpretive Path Guide](#) to learn more about the ecology and natural history of the area!

Joseph Beuys Sculpture Park

Right on campus art and nature meet in the Joseph Beuys Sculpture Park. The park was inspired by German visual artist Joseph Beuys' 7000 Oaks tree planting project. This was a community project completed in 2002. Share your story with one of the many [journals](#) located on the benches within the park.





sustainability **MATTERS**

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