MassArt Climate Action & Sustainability Plan 2020

AUTHORED by the Sustainability in the Curriculum Committee AY18-29 & 19-20

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The artworks featured in this report are from Climate Ready MassArt: a Civic Engagement Project with the City of Boston's Greenovate Office and Studio Foundation students, exhibition at Boston City Hall 11/26/2018 - 1/25/2019

This paper outlines a vision for action by the administration, faculty and staff to take concrete steps towards achieving carbon neutrality on campus by 2050, through changes in our curriculum, leadership communication and facilities. This carbon neutrality achievement is in accordance with the scientific findings of the October 2018 UN Intergovernmental Panel on Climate Change (IPCC) report.

Overview

International scientific consensus exists¹ that with every further decimal point increase in global mean temperature, people around the world will experience more severe heat, floods, droughts, fires and storms. People are already being forced to migrate from their homes because of increased health risks from unliveable heat and air quality, damage to infrastructure, food and water shortages. As temperatures continue to rise, these impacts will worsen: waiting to cut emissions will have severe, irreversible effects on populations and ecosystems around the globe.

The 2018 Intergovernmental Panel on Climate Change (IPCC) report calls for a 50% reduction in carbon emissions by 2030, ten years from now, and 100% by 2050. By keeping the global mean temperature below 1.5°C of warming, we can mitigate the worst impacts. It has become necessary for each individual, institution, community and country to bring their efforts into line to meet the 1.5°C target.

Over the past eight years MassArt has invested in sustainability initiatives in its building resources, recycling methods and a variety of facilities areas. We have supported and funded the development of sustainability studies in the curriculum. Yet our efforts to date will neither prepare our students with the processes, techniques and knowledge needed to navigate a rapidly heating world, nor will they keep us in line with the 2030/2050 carbon reduction goals for our campus's carbon footprint.

In spite of being a leading art and design school in the nation, and home to some of the most creative minds in the region, MassArt does not currently play a leading role in imagining and implementing climate change mitigation and adaptation efforts. Several educational institutions in the Boston area already have in depth Climate Action Plans². In addition, many schools, including UMass Boston and Northeastern, have joined working groups convened by the Green Ribbon Commission to support the outcomes of the City of Boston's *Climate Action Plan*.

MassArt's Strategic Plan emphasizes the importance of Research and Innovation and Community and Equity: these aims are crucial for the realization of our Climate Action Plan, particularly as the climate crisis is already affecting communities around the world, and locally, in inequitable ways.

In order for MassArt to remain a leader in art and design education as the climate continues to alter our world, change must happen swiftly, boldly, and with full support from the administration. Our students must be equipped to imagine and design solutions for the 21st century, and to be voices for positive change and resilience in a challenging world.

This report outlines the steps we must take to chart our own unique way forward.

1 2018 IPCC Report <u>https://www.ipcc.ch/sr15/</u> Fourth National Climate Assessment <u>https://nca2018.globalchange.gov/</u>

² Harvard University: <u>https://green.harvard.edu/campaign/harvards-climate-action-plan</u> Boston University: <u>http://www.bu.edu/climateactionplan/</u> RISD: <u>https://www.risd.edu/about/vision/</u> Green Ribbon Commission <u>https://www.greenribboncommission.org/</u>



YOU CAN'T LIVE IN A BUBBLE FOREVER... 4.6M PEOPLE DIE ANNUALLY FROM AIR POLLUTION

Jordan Mernick, MassArt '22 Climate Ready Boston poster

TOP ACTION ITEMS BY 2030 / 10 YEAR PLAN

STUDIO AND CURRICULAR INITIATIVES

- Conduct a life-cycle analysis of all the main studio processes at the college; provide data to students
- Make MassArt home to a sustainable materials library and lab available to the public for research
- Create a dedicated faculty line to lead the growing COF Sustainability Minor & teach core courses
- Micro-grants to faculty and student projects; host symposia on the topic
- Implement IT / server brownouts during non-peak hours

ADMINSTRATIVE INITIATIVES

- Understand the scale of the crisis and its inequitable impacts; collaborate with city, state and national efforts to mitigate, adapt and educate; communicate regularly with the MassArt community about it
- Reimagine our physical campus as an ecosystem, in collaboration with faculty and studio managers
- Include sustainability in faculty and staff job descriptions and searches
- Fund robust research efforts by faculty and staff to learn best practices and apply latest technologies
- Create new studio manager position in Sustainability to work across undergraduate and graduate programs, PCE, student groups, and maintain a lab / greenhouse / studio space to support projects
- Conduct a full campus climate resilience assessment (heat stress, flooding, power...)
- Ensure Counseling Services, food and housing access can meet the increasing needs of our students
- Become an active participant in the Green Ribbon Commission's Cultural Institutions Working Group

FACILITIES INITIATIVES

- Implement our \$13 million Accelerated Energy Project (AEP), leading to significant emissions reductions
- Enter into a Community Solar and / or Wind Power Purchase Agreement
- Install visible electric vehicle (EV) charging stations
- Design / build a solar hot water system for Kennedy cafeteria
- Design / build a solar photovoltaic system for South Hall roof
- Zero waste cafeteria
- Implement heat recovery and material recycling in the Glass Hotshop, as technology progresses
- Install low-flow toilets throughout campus
- Evaluate clean heating and cooling via air source heat pumps



Climate Ready Boston, Map Explorer: Storm water flooding, near to mid-term 2030-2050



Climate Ready Boston, Map Explorer: urban heat islands near-term (2030)

PROGRESS AT MASSART

With the support of President Kay Sloan, Professor Jane Marsching established the Sustainability in the Curriculum Committee in the 2012-13 academic year. The Committee has worked to research issues of sustainability from the courses taught in each department to the college curriculum in general. The Committee has integrated these issues with advice and recommendations from the staff in Facilities, where a Sustainability Officer implements improvements to the physical campus, and in collaboration with the SGA and Student Development.

SP 2016 **SP 2016** SP 2017 SP 2017 Prof. Kristian Prof. Jennifer **Sustainability** Sustainability Incubator launches Demary teaches Cole begins courses Studio launches 10 in the DMC with MassArt's first on food, artist courses in studio & Sustainability materials and **DMC 110** L.A. classes Science course ecosystems April 2019 May 2018 19-20 Climate **Resilience Forum in** First graduating **Sustainability** the DMC Atrium. 12 Sustainability Minor Studio courses run offices and departclass year-round in ments partici **DMC 110** pate **FACILITIES MILESTONES** 2018-19 2019 2014 The commercial waste 80-92% recycling rate of **AEP Accelerated Energy** ban leads to composting construction & Project launches. Campus efforts on campus. demolition debris (South carbon footprint to **Building renovation**) decrease by 25% Increased recycling of universal and electronic waste

CURRICULUM MILESTONES

CURRICULUM SPOTLIGHT: Biodesign Challenge

Taught in the Spring semester by Professor Jennifer Varekampf (Fashion)







There is tremendous potential for positive advancements that can be made by bringing artists and designers into the conversation and process of biological design. Biotechnology has entered into many aspects of our daily lives, from advancements in medicines and greener solutions to the negative impacts of genetically modified foods and crops. The speed of these developments is incredulous, and should not be left to market forces alone. A deeper level of understanding and critical thinking around these technologies can emerge to envision and design a better world.

"Biodesign Challenge" offers an interdisciplinary platform for students to engage, collaborate and experiment in regards to biotechnologies and our future. The class will participate a global design challenge bringing together students among leading art, design and research institutions to compete. The course introduces new forms of fabrication, tools and materials used in biotechnology. Students will be connected to a team of expert consultants, have access to an extensive array of resources and biotechnology labs situated right in the Boston area. Through speculative and creative thinking, research and innovation, small teams of students are asked to envision, develop and prototype a biodesign project addressing a real problem with an achievable design solution. At the end of the semester, one team project is selected to represent MassArt at the Biodesign Summit at the MOMA.

MASSART CLIMATE ACTION PLAN

Action items: An explanation

STUDIO AND CURRICULAR INITIATIVES

Students are arriving at MassArt with increasing levels of anxiety about the future, and climate collapse has a large part to do with this. Of 200 students surveyed last year for a final project by firstyear student Morgan Gredenius, climate change was the 4th most prevalent source of worry. Facing the challenge head-on with positive changes to our curriculum that empower students to be active and informed agents in shaping their future is key. To do this, we need new resources on campus.

Conduct a life-cycle analysis of all the main studio processes at the college; provide data to students. A life cycle analysis, or LCA, is a technique that assesses the environmental impact of a product, from the materials used to make it to its ultimate disposal. An LCA can be a great tool to identify changes that can decrease a product's negative effects on the Earth over the course of its life. In addition to reviewing and documenting the studio products, materials and equipment that we use through SDS and Manuals, understanding their "life" potential and impact once we use/make them into something else/new and 'release' it into the world as a product for someone else's use or refuse, is important to informing our practice and responsibility. This practice allows students to form the connection of their work and the environment.

Make MassArt home to a sustainable materials library and lab available to the public for research.

A Materials Library houses collected materials, often sustainable in nature or sourcing, which researchers from the faculty, student body or the general public can consult, and in some cases check out to supplement a presentation. Locally, RISD has the most exhaustive Materials Library, with 41,000 material samples arranged by composition. It is a hands-on, interdisciplinary collection for the exploration of materials used in architecture and construction, fine arts and design, apparel and interior furnishings, landscaping, product design, and printing. Categories include biocomposites, minerals, metals, ceramics, polymers and textiles. Students are encouraged to handle samples and items may be checked out for research or presentations. They can investigate the possibilities of eco-friendly materials, anti-microbial materials, smart materials, and conductive materials–among many other properties.

A materials lab would be a dedicated space for students to explore, experiment and collaborate on developing new sustainable materials. It would be a space where art and science could thrive and be nurtured. We feel these are key curricular tools, currently absent at MassArt.

Create a dedicated faculty line to lead the growing COF Sustainability Minor & teach core courses.

Core courses in the Sustainability Minor are currently taught at MassArt by faculty across departments. While this arrangement is consistent with the interdisciplinary character of sustainability studies, it also means that faculty have to reconcile their home department's needs for coverage of subjects with the requirements of the Minor. A dedicated faculty line to lead the Minor would provide a baseline of courses for students to take for their program, supplemented by courses from departments across the college. The new faculty person would also be responsible for overseeing the Sustainability Minor in the long-term.

Micro-grants to faculty and student projects; host symposia on the topic

Money to support educational programs is of utmost importance to our students. Micro-grants have a proven success rate to advance student educational goals. Not only do they provide much needed resources for a specific project, but they provide students with grant writing experience, a much needed skill for them in life after MassArt. Topics are only limited by the imagination of the student, and could include the development of collaborative projects with scientists, writers, and other artists. Why not fund a series of conversations amongst student artists and scientists on the topic of climate change and sustainability with the outcome goal of published papers covering the conversations.

Micro-grants could also be used to fund internships for students to work with state or national congressional leaders to advocate legislative change.

Implement IT / server brownouts during non-peak hours

The goal of server brownouts for energy saving is to have all servers going into energy saving mode during off peak hours. This mean all updates and backups have been done for the evening and the servers are not running at full capacity. This would be one of many possible ways to save energy and the cost of energy for the college. A recent Guardian article says: "The communications industry could use 20% of all the world's electricity by 2025, hampering attempts to meet climate change targets and straining grids as demand by power-hungry server farms storing digital data from billions of smartphones, tablets and internet-connected devices grows exponentially." MassArt can address this challenge with thoughtful choices aimed to reduce our server energy use.

ADMINSTRATIVE INITIATIVES

MassArt must not miss the opportunity to be recognized as a leader in 21st century art and design education. In light of climate collapse, this means being vocal about the challenge and bold in adapting to it.

Understand the scale of the crisis and its inequitable impacts; collaborate with city, state and national efforts to mitigate, adapt and educate; communicate regularly with the MassArt community about it

After the IPCC report was published in the Fall of 2018, there was no public statement from MassArt leadership either about the scale of the existential threat we face, nor about MassArt's role in shaping a positive and more just future through mindful and sustainable art and design education. We have undergone a Strategic Planning process which aims to make the College more student ready, collaborative and focused on innovating the future. Our leadership needs to see how this intersects with climate collapse and move forward projects and curriculum that will be part of the solution.

MassArt, under the leadership of President Kay Sloan, joined The Climate Leadership Network – Second Nature – which is comprised of colleges and universities across all 50 states including the District of Columbia, who have committed to take action on climate and prepare students through research and education to solve the challenges of the 21st century. This commitment leads with:

We believe colleges and universities must exercise leadership in their communities and throughout society by providing the knowledge, research, practice, and informed graduates to create a positive and sustainable future. Along with other aspects of sustainability, campuses that address the climate challenge by reducing greenhouse gas emissions and by integrating resilience into their curriculum, research, and campus operations will better serve their students and meet their social mandate to help create a vital, ethical, and prosperous civil society.

We further believe that exerting leadership in addressing climate change will reduce our long-term energy costs and the costs of climate disturbance, increase our quality of life, attract excellent students and faculty, and build the support of alumni and local communities.

We call on all those who are in leadership positions on our campus to evaluate their guidelines, goals, practices, and communication to align with the Climate Leadership Commitment.

Reimagine our physical campus as an ecosystem, in collaboration with faculty and studio managers

Students have done and proposed many sustainable projects, processes and products over the course of our years inhabiting this campus, notably through previous mini-grants (self-sustaining "live" vegetation walls, greenhouse in courtyard, growing/farming in courtyard, etc.) sustainable Architectural installations in Tower Lobby and at Wentworth/MassArt outdoor spaces, Food and Wellness projects through Student Development (the Shelf) and Facilities (food and container waste collection; filtered drinking fountains, grey water collection, hazmat collection sites in studios) as well as projects within coursework and disciplines (eco-dying; clay for change, plant sales, plants and window gardens for air quality effects in Tower studios and labs.)

Any serious effort to address climate change will require international cooperation as well as relationships, from the interpersonal to the international, and coordinate actions across several levels: local (city and state), regional, national, and international. On our campus, in light of the accepted knowledge and credible projections around climate change, we must work together to make informed decisions about strategies in the present that will impact the future. As we imagine our campus as an ecosystem, we see each one of us as part of an interconnected living whole, in which we inspire, support, challenge, and lead each member and part of our community towards a healthy and just future.

Include sustainability & ecological justice in faculty/staff job descriptions & throughout hiring practices In order to teach students ways of responding to the climate challenge personally and creatively, we need faculty whose work prioritizes sustainable techniques, and who bring social justice into the classroom through their teaching methodology as much as through the content they teach. The 2020 Photography Department job description included this language:

As we aim to promote an inclusive environment, we seek candidates who can actively participate in our shared mission and vision and encourage applicants to apply and to identify their strengths in this area. In this urgent time, MassArt prioritizes the teaching of sustainability in art and design and defines it as addressing and solving the problems at the intersection of social justice, health, and the environment.



CURRICULUM SPOTLIGHT: Climate Resilience Forum, April 2019



Some points to consider when evaluating candidates in light of sustainability and justice initiatives on our campus: Identify what in the employee's job duties can further the goals of the Climate Action plan with robust input from the employee and department; evaluate experience and goals in including sustainability and social justice in curriculum; set goals for evaluation related to justice/sustainability work (as part of promotion and tenure); share with the college community any curricular and professional work being done by employees in the area of climate justice.

Fund robust research efforts by faculty and staff to learn best practices and apply latest technologies By supporting faculty and staff to further research and learn best practices, participate in workshops, conferences and summits both on a local and global scale in relation to sustainability and climate change we can successfully move forward to bring these new tools and technologies into our curriculum and infrastructure, and create spaces to support and grow them. These opportunities create a greater network of support to work with for both MassArt and our students. As these issues impact all people on a global scale it is essential to learn about new and emerging technologies and tools, share resources, understand best practices and offer an education that embraces collaboration. Our students want and need to be prepared to be a part of the solution. As faculty and staff, we need the support to bring them the most current, creative and innovative tools and knowledge to be successful change makers.

Create new studio manager position in Sustainability to work across undergraduate and graduate programs, PCE, student groups, and maintain a lab / greenhouse / studio space to support projects

The Sustainability Minor and Studio (DMC 110), student groups and clubs, and student research projects have no common coordinator at present who has the knowledge of sustainable practices in art and design and can supervise and assist in ambitious socially and environmentally engaged art and design projects. Over the years many laudable student-initiated efforts, intended to transform the culture and spaces on campus, never reached their potential (greenhouse, green roof, courtyard growing projects, food and community projects) because they cannot be maintained beyond a student's time at MassArt, let alone a single semester or class.

UMass Amherst, for example, has Sustainability Coordinator, who oversees 3 permaculture teaching gardens and supports several majors on campus, while providing some food for the Dining Halls. While we do not match UMass Amherst in scale, with thoughtfully maintained green spaces and a dedicated studio manager, there is potential here for sustainability modules in sourcing and growing materials, life-cycle analysis and cradle-to-cradle materials and design, and more courses in socially engaged art practices, participatory and public art.

Conduct a full campus climate resilience assessment (heat stress, flooding, power...)

MassArt administration can lead college curricular, community, and facilities efforts by prioritizing climate resilience in every aspect of college planning and leadership, including analysis, stakeholder engagement, and timely urgent action plans. This campus resilience assessment can dovetail with the Strategic Plan and ensure the success of the Strategic Plan by making the community, campus, and creative practices have a healthy, just, and peaceful future.

Ensure Counseling services, food and housing access can meet the increasing needs of our students

Students are experiencing increased stress levels due to fear of environmental uncertainty and the safety of the planet. Fears are fueled by an unstable world related to the political climate and dangerous changes in weather patterns, and there is uncertainty and feelings of helplessness as to what they can do. Counseling services can help ease fear and anxiety.

Within the context of climate change, today more than ever students identify as vegans, vegetarians,

and have known food allergies, and they need access to healthy choices. We know the impacts of climate change will affect the most vulnerable populations first. It is essential that MassArt be prepared to support housing and food for our students in need.

Become an active participant in the Green Ribbon Commission's Cultural Institutions Working Group

The Green Ribbon is a consortium of over 40 art, science, sports and entertainment organizations committed to leadership on climate action through creativity, education, and facility energy efficiency and resilience. They are committed to helping institutions develop climate action plans such as this one. MassArt's participation in this Commission is a visible evidence of our commitment to civic leadership on climate action.

FACILITIES INITIATIVES

70% of carbon emissions in Boston come from buildings. Our campus can have a tremendous impact.

Implement our \$13 million Accelerated Energy Project (AEP), leading to greenhouse gas reduction This program involves developing and implementing energy and water savings projects statewide per Executive Order 484. It is a Collaborative effort between MassArt and the Division of Capital Asset Management and Maintenance (DCAMM), Department of Energy Resources (DOER), and Ameresco. The timeline is approximately October 2019 - December 2020. Preliminary calculations have estimated a potential approximate 25% reduction in Greenhouse Gasses (GHGs) at MassArt.

Enter into a Community Solar and / or Wind Power Purchase Agreement

In order to meet IPCC 2030 goals, MassArt should consider entering into a Power Purchase Agreement similar to Boston University (BU). BU will buy nonpolluting wind power for 15 years beginning in 2020, a major step in the University's Climate Action Plan (CAP) to curb greenhouse gas emissions. The University will buy 205,000 megawatt hours of electricity annually during the contract. This amount is equivalent to displacing greenhouse gas emissions from 33,000 motor vehicles over the course of a year, says BU sustainability director Dennis Carlberg.

Install visible electric vehicle charging stations

As of January 2020, MassArt received confirmation that Eversource can obtain power from the Artist's Residence transformer for an electric vehicle charging station (EVCS). In order to move forward with the installation of the EVCS, review/approval of the Eversource Consolidated Site Host Agreement (as well as additional contracts) is needed by MassArt administration.

Design / build a solar hot water system for Kennedy cafeteria

In an effort to offset hot water demand in the Kennedy Cafeteria, MassArt has evaluated feasibility of a solar hot water heater system. The net cost after incentives was estimated at \$159,582 as of February 24th, 2020. After evaluation of ROI (return on investment), there may be an opportunity for this to be funded as part of the AEP program.

Design / build a solar photovoltaic system for South Hall roof

MassArt is currently working with the Massachusetts Department of Energy Resources to assess feasibility of a small-medium solar project.

Zero waste cafeteria

September 2019, the Massachusetts Department of Environmental Protection(MassDEP) issued a Draft



Caitlin Carr, MassArt '22 (Infographic Project for TIME: State of Urgency

*According to data projections by Climate Ready Boston

for Public Comment Massachusetts 2030 Solid Waste Master Plan in accordance with Massachusetts General Law Chapter 16, Section 21. Currently MassDEP's proposed waste reduction goals for 2030 include 1. To reduce disposal by 1.7 million tons annually from a 2018 baseline of 5.7 million tons to 4.0 millions by 2030, a 30% reduction.

2. To reduce the toxicity of the waste stream by implementing producer responsibility approaches for targeted materials. In order for MassArt to be in line with these goals, we need to aggressively work on reducing our waste in the cafeteria as well as reducing the toxicity of the waste stream from all over campus.

Implement heat recovery and material recycling in the Glass Hotshop, as technology progresses

The Glass Hot Shop is an incredibly energy intensive area of campus. As this facility has its own gas bills, in FY 18, the glass hot shop alone consumed 39, 621 therms of natural gas. To put this in context, the entire Tower building (42,719 therms) and Collins building (40, 401 therms) consumed similar quantities of natural gas. In recent years, the temperatures in the duct work were evaluated and the temperatures were found to be too low for heat recovery. As technology progresses, heat recovery of the glass/hotshop



Melodie Arya, MassArt '22 Climate Ready Boston poster should be further evaluated.

Install low-flow toilets throughout campus

Massachusetts State Plumbing Code requires low flow systems. On average a 3.5 gpf toilet uses around 27,300 gallons of water per year. By comparison the 1.6 gpf toilet uses only 12,500 gallons per year. That is less than half as much water. These toilets not only reduce our water consumption significantly but also signal to our community our commitment to sustainability in all aspects of our college community and behavior.

Evaluate clean heating and cooling via air source heat pumps

According to the Massachusetts Department of Energy Resources, an air source heat pump (ASHP) uses the outside air to heat or cool a building. When used to heat a Building, this is achieved by transferring heat inside from the outside air. When used to cool a building, this is achieved by transferring heat from inside to the outside air. To achieve heat transfer in either direction, air source heat pumps use a system that includes a heat exchanger, a compressor and means to transfer heat from one area to the other, e.g., pipes filled with a refrigerant. Air source heat pumps are driven by electricity, and systems exist that are powered by solar panels, making them both clean and energy efficient.

Cold-Climate heat pump systems heat and cool your building at a fraction of the cost of oil or propane. Coupled with your existing oil or propane heating system, these hyper-efficient and quiet heat pumps work down to sub-zero temperatures to comfortably and efficiently heat your living and working spaces. During summer months, these units reverse and efficiently keep your building cool.

CURRICULUM SPOTLIGHT: Green Furniture/Green Future How Using Local Timber Can Help Fight Climate Change

Taught in Spring 2020 by Professor Mitch Ryerson (Architecture)



Tables made for the New England Forestry Foundation offices by students in MassArt's Architecture Department's Furniture Fabrication for a Sustainable Future course.

Massachusetts currently has enough forest cover to absorb a million homes' worth of carbon emissions each year. Supporting a responsible forest economy is the best way to protect this resource, and in the Fall of 2019 MassArt furniture design students collaborated with the New England Forestry Foundation to design, prototype, and build a series of tables for the conference room at NEFF's headquarters in Littleton, MA, using sustainably harvested timber from local forests.

MassArt's Furniture Fabrication for a Sustainable Future course, taught by woodworker and furniture maker Mitch Ryerson, combines experience in the fine art of furniture making with an exploration of the procurement, preparation and use of sustainable materials with a focus on functional pieces for living, learning and working spaces.



CURRICULUM SPOTLIGHT: The Sustainability Minor

The COF Minor in Sustainability is embedded in the international recognition that unsustainable pressures resulting from human activity threaten the systems on which human existence depends. These pressures often impact the most vulnerable members of society. The COF Minor in Sustainability encourages students to explore the challenges at the intersection of health, justice, and the environment. In a series of 6 courses, students can dive deeply into the complex systems thinking and practice that underlies sustainability work and integrate new knowledge, understanding, and experiences into their major studio work.





The first interdisciplinary minor at Massart, begun in 2017, the COF Minor in Sustainability is not part of any department or major. Instead it operates as a lateral rhizomatic structure reaching into all areas of the college curriculum. Students can take courses in Liberal Arts such as Jennifer Cole's *Eating and the Environment* or in History of Art such as Joanne Lukitsh's *Climate Change in Contemporary Art.* Studio courses from Studio Foundation such as Jane D. Marsching's *TIME: Art and Ecology* or from Fashion, such as Jennifer Varekamp's *Biodesign: Designing for a Better World* course offer opportunities to explore sustainability practice in a studio context.

The home of the COF Minor in Sustainability on Campus is The Sustainability Studio, which began as the Sustainability Incubator in 2015 and is now a full-year platform (as of academic year 19/20) in the Design Media Center D110 on the first floor, centrally located at MassArt. A hub for all curriculum, student engagement, projects, and efforts to address the challenges at the intersection of health, justice, and the environment, the classroom is revisioned as an interdisciplinary lab, with student projects, artist and designer exhibitions, experiments, a library, tea, plants, and a welcoming atmosphere.

Minor Director: Professor Jane D. Marsching

Recommended Reading

OVERVIEW OF THE CHALLENGE AND THE SCIENCE

• Christiana Figueres and Tom Rivett-Carnac The future we choose : surviving the climate crisis. 2020

CLIMATE JUSTICE

• Mary Robinson, with Caitríona Palmer *Climate Justice: hope, resilience, and the fight for a sustainable future.* 2018 est-ce notre

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• Wen Stephenson What we're fighting for now is each other : dispatches from the front lines of climate justice. 2015

ACTION PLAN EXAMPLES

• Climate Ready Boston www.boston.gov/departments/environment/preparing-climate-change

• Boston University Climate Action Plan www.bu.edu/climateactionplan/

• Harvard University Climate Action Plan green.harvard.edu/campaign/harvards-climate-action-plan

PODCASTS

TIL Climate, from MIT

Optimism and Outrage, with Christiana Figueres

MASSART LIBRARY RESEARCH GUIDE

massart.libguides.com/climate

avenir? ; ; es este nuestro futuro? is this our future? ito ba ang ating hinaharap? - わか私たちの将

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The world is on fire, from the Amazon to California, from Australia to the Siberian Arctic. The hour is late, and the moment of consequence, so long delayed, is now upon us. Do we watch the world burn, or do we choose to do what is necessary to achieve a different future?

Who we understand ourselves to be determines the choice we will make. That choice determines what will become of us. The choice is both simple and complex, but above all it is urgent.

> Christiana Figueres and Tom Rivett-Carnac Authors of The Future We Choose

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