

Visioning the Urban Farm Programing at the University of Oregon

This document provides an outline of the vision, strategies, and required resources to expand UO's urban farming educational and community impact while showcasing a uniquely Oregon-style exemplar of world-class research in an ecologically responsive and productive landscape.

Context

As of today, the global population comprises 8B humans, 55% of whom (4.4B) reside in cities. As urbanization accelerates, the UN anticipates that 68% of the anticipated 9.8B humans (6.7B) will reside in cities by 2050, an increase of approximately 152%. While there are wide-ranging arguments about the Earth's true carrying capacity, it is clear that there will be a rapid and sharp increase in the need for sustainably produced and geographically distributed food supply. At a local level, in their [June 9 2020 letter on Race and Food Insecurity](#) the UO Food Security Task Force reported that 36% of UO students experience food insecurity at some point during their time on campus¹. What is obvious is that we need to develop and demonstrate transformational and repeatable local food production methods. What is not obvious is that as these food production activities need to occur in increasingly urban settings, there is an increasing need for design and design thinking approaches to solve these problems. This is not a problem set purely for the domain of agriculture, there is an important role for design.

In operation since 1976, the University of Oregon Urban Farm is a model for alternative urban land use where people grow food, take care of the land, work together, and build community. Throughout its history as part of the Department of Landscape Architecture, the Urban Farm has been a place and a process integrating biological, ecological, economic, and social concerns. The urban farming curriculum supports approximately 320 students annually and courses fill quickly and have wait-lists during Fall and Spring quarters. The Campus Plan identifies a designated Outdoor Classroom north of Franklin Boulevard that is associated with the Urban Farm. Adjacent land north of the Outdoor Classroom, east of the Fine Art Studios and Woodshop, and west of the parking lot on Riverfront Parkway has also been used for urban farming activities. Additional "pocket" gardening and farming activity is conducted at Columbia Street (north of 19th Ave) and less formally at the Moss Street Grove Garden (in associate with CASL House and the UO Student Sustainability Center), and in the past at the Federal Courthouse Garden. These satellite or "pocket gardens" help to elevate the profile of UO's urban farming curriculum and promote civic agriculture to students and community visitors. The Outdoor Classroom comprises approximately 20,000 SF, the adjacent cultivated area and orchard comprises approximately 20,000 SF, and the Columbia Street Garden includes about 13,000 SF for a total of approximately 53,000 SF presently available as cultivatable land.

Even with substantial effort to accommodate and mitigate impacts during the construction of Knight Campus Phase 1, there were still challenging disruptions to the urban farming program. Preliminary plans for the Knight Campus Phase 2 construction indicate more disruption, including impacts to the Urban Farm Outdoor Classroom and more substantial and longer-term impacts to the adjacent areas used for farming activities. Given this situation, and with new leadership in the College of Design (DSGN), the School of Architecture and Environment (SAE), and the Department of Landscape Architecture, we collectively implemented the urban farming visioning process documented herein. See *Appendix A* for details on process.

¹ It is estimated that the urban farming program produces and distributes approximately 20,000 pounds of food to UO students per year.

Visioning Process Charges

1. Charge 1 - Develop selection criteria and programmatic needs for additional urban farming cultivatable area, additional designated outdoor classroom area, and other spaces and places for urban farming activity.
2. Charge 2 - Enhance student experiences and increase access to urban farming activities
3. Charge 3 - Integrate research experiences into curriculum and expand research opportunities within urban farming programs.

Charge 1 - Develop selection criteria related to programmatic needs for additional urban farming cultivatable area, additional designated outdoor classroom area, and other spaces and places for urban farming activity.

We aim to increase urban farming cultivatable area to a total of approximately 80,000 SF across one or more locations. In the current model, each student or team of students cultivates their own garden plot. Therefore, in order to support growth of the program additional area is needed. The soil and other ecological conditions of these locations should be conducive for urban farming and thus include access to sunlight, irrigation, and uncontaminated nutrient rich soil (or resources to perform mitigation as needed). While a single cohesive location is most efficient for staffing and equipment, there is a strong desire to include a prominent area to support broader campus and community engagement, education, and research. Developing a larger primary location with additional “pocket farming” locations would strike the right balance between efficiency, visibility, and campus and community engagement opportunities. We plan to include some interactive signage at the pocket-farming locations to display current farming activities at the primary location and other pocket-farming locations. The primary location ideally also includes:

- access to power, irrigation water, potable water, cultivatable soil
- vehicle access and parking for one farm vehicle/equipment
- ADA accessible pathways to equivalent experience in farming area
- secure edges to manage access for people and wildlife as needed to support farming activities
- ~1000-1500 SF of rain covered outdoor gathering area (ADA accessible) with seating for (~40) students; covered area or secure storage area to include sink(s) and counter space for food preparation and adjacent storage
- ~ 1000-1500 SF of shady area (ADA accessible)
- ~ 200 SF secure storage for hand-held farming equipment, plus caged area for wheelbarrows
- ~150-300 SF secure area for composting, (e.g., 5’x30’ secure area with adjacent dumping area connected to vehicle access)
- allowance to use composting toilets
- walking distance to Lawrence Hall, Columbia Hall, and EMU

Charge 2 - Enhance student experiences and increase access to urban farming activities

The hands-on and place-based nature of the urban farming program enriches the lives of and provides transformative experiential learning opportunities for all students engaged. These activities promote the UO Environment Initiative by enhancing direct student outcomes, providing diverse experiential learning offerings, and promoting new ways of thinking about professional pathways within our changing world . We aim to increase student access with an additional cultivable area as discussed in Charge 1 and provide ADA accessible farming and gathering areas to support equivalent experiences for diversely-abled participants. We aim to further enhance student experience and community engagement by increasing farm staff (e.g., faculty/supervisory staff), diversifying urban farm course offerings, and engaging new faculty research in this area. We recognize that staffing increases will need to be justified with a proforma that accounts for increased revenues associated with increased enrollment in farming curriculum. We aim to further enhance student

experience by building upon our tradition of interdisciplinary collaborations by increasing our engagement with students, faculty, and staff in diverse disciplines, as well as Landscape Architecture and Architecture, and to develop new design build activities associated with the urban farming program. Furthermore, we aim to develop new curriculum and programming to address contemporary global urban farming challenges such as highly-efficient methods for irrigation and dry-farming techniques, closed-loop farming techniques (e.g., hydroponics and aquaponics), farming with little available land (e.g., sack and vertical farming), and techniques for farming in challenging areas (parking lots, freeways, between buildings).

Charge 3 - Integrate research experiences into curriculum and expand research opportunities within urban farming programs.

We aim to expand research opportunities and integrate research-based educational experiences within the urban farming curriculum by leveraging several ongoing and relevant research programs and creating space for new research collaborations. Possible connections with the Provost's Environment Initiative and Knight Campus for Innovation are many. There are two tenure-related searches approved (AY 2022-23) for Landscape Architecture and the emerging Bachelor of Environmental Design degree program, both of which will contribute to increased research-based educational opportunities. While the specifics of the research interests of new selected faculty will depend greatly on the individuals selected, it is anticipated that contributions to the urban farming program and productive landscapes initiative will be an important criterion and build on the ongoing efforts of the Fuller Initiative for Productive Landscapes. In addition to the current urban farming research connections listed below, a coordinated effort is planned to expand our urban farming programming to contribute within the [Water-Food-Energy Nexus](#), explore distributed food production to mitigate supply chain disruptions, develop resilient farming techniques in response to climate change (including co-production of habitat, integrating sensing technology to support targeted irrigation), and explore the potential of developing biobased construction materials (e.g., mycelium mesh, etc.). As noted above, we also aim to develop research-informed pedagogy related to closed-loop farming techniques, techniques for farming with little available land, and techniques for farming in challenging areas.

Current and emerging research collaborations include:

- a range of collaborations within DSGN including: transpecies design with Dean Adrian Parr; skin, soil, and gut microbiome research in collaboration with Dr. Gwynne Mhuireach and Professor Kevin Van Den Wymelenberg at the BioBE Center; a forthcoming proposal to USDA's Urban, Indoor, and Emerging Agriculture to explore evidence-based methods for identifying viable urban agricultural site; stormwater and wastewater management with professors Rob Ribe and Kory Russel; smart irrigation with Jun Hak Lee (and Professor Darren Johnson from Chemistry and Biochemistry); agri-voltaics (dual-use solar) with Jun Hak Lee and Professor Yekang Ko
- soil and carbon sequestration with Professor Lucas Silva from Geography
- bees and pollinator research with Lauren Ponisio from Biology
- a range of community engagement research including: Susie Holmes at Lane Community College, the Master Gardeners programs at OSU and the City of Eugene, and the 4J School Garden Project
- a range of social science research including with professors Alexandra Rempel in Environmental Studies, Sarah Wald in English, Sara Stapleton in Education, Michael Fakhri in Law, Erin McKenna in Philosophy, Stephen Wooten in Global & Food Studies, Galen Martin in Global Studies/Honors, Peter Laufer in Journalism, David Meeks in Global Studies, Diana Garvin in RL/Italian.

Appendix A: Urban farming visioning, timeline, and process

This document was prepared in Spring 2022 to support a request for space to expand the urban farming program at the University of Oregon. During Winter and Spring 2022 leadership in the College of Design (DSGN) has been participating in two related processes associated with Phase 2 of the Knight Campus. One is directly related to north campus DSGN footprint and Knight Campus Phase 2 construction (including mitigation associated with facilities tunnel) and the School of Art and Design (maker spaces) and School of Architecture and Environment (Urban Farm, including the designated outdoor classroom and other areas used by the urban farming program). The second is related to the urban farming program visioning process and is documented herein. DSGN leadership participated in several conversations with CPFM and Knight Campus leadership and design team during AY 2021-22.

During winter 2022, Urban Farm stakeholders expressed concerns regarding possible impacts of Knight Campus construction and Dean Parr held a public listening session with broad invitation. About 60-70 students participated in March 2022 listening session.

After that meeting, additional clarity was achieved about what was in and out of the DSGN facility portfolio. The “urban farm outdoor classroom” or “designated outdoor space” was clearly in the DSGN portfolio, but the “back 40” has long been designated for possible development and was not in the DSGN portfolio. DSGN leadership worked with Communications, and CPFM to develop and post this [Urban Farm FAQ](#).

Given the expected disruption to the urban farming program during construction and anticipated future disruptions it was determine that a vision process for the future of the program would be fruitful. A task group was formed to facilitate an inclusive engagement process to receive stakeholder input related to three charges (listed above). Approximately ten students were nominated by faculty within the Department of Landscape Architecture and three students were selected to participate in the facilitation process along with the current Department Head, incoming Department Head, and SAE Director. During Spring 2022, a series of visioning meetings were conducted. On May 11, 2022, we kicked-off the visioning process with faculty and students, and subsequently held weekly or bi-weekly meetings. These included four meetings with student representatives, faculty, and staff within the Department of Landscape Architecture (one including Campus Planning staff), about a half-dozen meetings with Urban Farm Director (Harper Keeler) and unit heads, and additional meetings between University, College, and Campus Planning and Facilities Management (CPFM) leadership between May 11-June 15. The task force collaborated to write a draft of the visioning document organized around Dean Parr’s three charge areas. We circulated that draft amongst entire faculty within the Department of Landscape Architecture and the draft was shared with Dean Parr.