

Valencia College Urban Agriculture and Aquaponics Proposal

Statement of the Case

The concept of **urban agriculture** has expanded in recent years and dovetails directly with models of **local food production**. “Urban agriculture includes production, distribution and marketing of food and other products within the cores of metropolitan areas and at their edges. Examples include community, school, backyard, and rooftop gardens with a purpose extending beyond home consumption and education to urban market gardens, innovative food-production methods that maximize production in a small area, community supported agriculture based in urban areas, and family farms located in metropolitan greenbelts.” (Adapted from the American Planning Association, 2011).

Communities and governments are also working to find local solutions to the wide range of environmental, social, and economic challenges society faces. Food security is a major area of focus within the context of community resiliency. The necessity to localize food, water, and energy systems is being driven by several factors including climate change and disruption of existing agricultural systems, consumer demand for transparency, realized shortcomings of large scale mono-cropping, inefficiencies resulting in up to 40% [food waste from farm to fork to landfill](#), emergency preparedness (only about three days’ worth of food in a grocery store), and health disparities.

Valencia is poised to respond to the growing demand in Central Florida and beyond for training in urban agriculture. The A.S. Landscape and Horticulture Technology is presently being redesigned and recast as an A.S. Plant Science and Agriculture Technology. The redesigned program seeks to respond to the demand for greater proficiencies in urban agriculture by embedding curricular foci in the areas of aquaponics and permaculture. The Green Sky Growers Rooftop Greenhouse is a state-of-the-art facility that utilizes several different systems of hydroponic production, as well as an aquaculture system for the production of fresh fish, plants, and vegetables, and it can provide Valencia’s students an optimal laboratory setting for training in urban agriculture.

Proposed Facility Usage Plan

- Ten (10) existing courses in plant science and agriculture will use the facility for experiential learning experiences.

Courses	FALL TERM		SPRING TERM		SUMMER TERM	
	Students	Visits	Students	Visits	Students	Visits
BOT 2010C	20	3 to 5	20	3 to 5		
HOS 1010C	45	2 to 3			45	2 to 3
ORH 2251C	14	1 to 2				
PLP 2001C	16	3 to 5				
BOT 2510C			20	3 to 5		
ENY 1002C			15	4 to 7		
ORH 2260			12	7 to 15		
AOM 2012C					12	2 to 3
PLS 2220C					12	2 to 3

- Five to seven (5 – 7) new courses planned for college credit certificates and in hydroponics, aquaponics, aquaculture, and permaculture will use the facility weekly or bi-weekly.
- Permaculture workshops will be offered through continuing education on topics such as backyard aquaponics systems, home-based hydroponic gardening, edible landscaping, composting, and eco-friendly homemade products.
- Destination events such as farm to table meals will showcase the facility, fish, and produce to the community and potential donors.
- Specialized trainings offered in partnership with Pentair Aquatic Eco-Systems will provide expert-level professional development to incumbent workers and interested corporations.