

# SUA1 Sustainable Urban Agriculture Technician ( version 201412 ) - TCC

## Program Information

<i>Program Name</i>	<i>Non-Occupational Program</i>	<i>Program Development</i>
<b>Sustainable Urban Agriculture Technician</b>	<b>No</b>	<b>Standard</b>
<i>Program Version</i>	<i>Program Award Level</i>	<i>Program Credit Hours</i>
<b>201412</b>	<b>Technical Certificate</b>	<b>19</b>
<i>Program Length</i>	<i>PAS Program Group</i>	<i>CIP Code</i>
<b>2 Terms</b>	<b>0580 Environmental Horticulture</b>	<b>010601 Applied Horticulture/Hort Op</b>

## Justification

### Program Description

This program prepares the student for a career in sustainable, small scale food production that integrates economic profitability and environmental stewardship. Courses provide hands-on experience in the fundamentals of plant production and marketing, giving the student a complete knowledge of the sustainable farmer's market system.

### Occupational Trends

Farmer's markets are opening up all over the state as the consumer is interested in locally grown, sustainable produce. Gwinnett County has markets in Lawrenceville, Suwanee, Snellville, Norcross, Dacula, and Lilburn. This is a new trend that has been on the rise with none of these markets being more than five years-old. While most occupations for growing produce are on the decline, small scale food production is only area expecting growth. The industry is receiving support from municipalities. For example, the city of Atlanta has a long range sustainability plan which includes a commitment to bring "local food within 10 minutes of 75 percent of all residents by 2020." 2011 Urban Ag Report, Turner Environmental Law Clinic at Emory Law School. There is also legislation being brought before the state of Georgia this year that would make these careers even more feasible (HB 2 and 12). This program receives the most requests and interest from current and potential students of all innovations currently being purposed by horticulture.

### Education Programs

None locally. UGA- Certificate in Organic Agriculture This is a new area of education and is often found as a division of current agriculture or horticulture programs. Nationally it is found as a certificate a part of the previously mentioned programs.

### Actual Job/Career

Market Farmer, Agri-tourism Farmer, Farmer's Market Director, Community Garden Manager/Organizer, kitchen garden designer/specialist, CSA operator/farmer, Eco-landscaper (sustainable/organic landscape specialist) are responsible for soil preparation, crop production planning, crop installation, crop management, harvest, handling and marketing. They use sustainable methods to produce the crop on relatively small properties, in agricultural terms. They are located locally and often in urban settings and taking advantage of site previously considered blighted. They most often market directly to the consumer from their property or locally established Farmer's markets.

### Employment Trends

This being a new occupation there are no employment projects available from the US Department of Labor. However, in its 2010 Occupational Outlook Handbook Summary of Farmers, Ranchers, and other Agricultural Managers the following Significant Point was made, "Small-scale, local farming, particularly horticulture and organic farming, offer the best opportunities for entering the occupation". In 2012 the following statement was made, "Despite the expected continued consolidation of farmland and the projected decline in overall employment of this occupation, an increasing number of small-scale farmers have developed successful market niches that involve personalized, direct contact with their customers. Many are finding opportunities in horticulture and organic food production, which are among the fastest growing segments of agriculture. Others use farmer's markets that cater directly to urban and suburban consumers, allowing the farmers to capture a greater share of consumers' food dollars."  
<http://www.bls.gov/ooh/management/farmers-ranchers-and-other-agricultural-managers.htm>

## Salary Trends

Hourly Salary  
Annual Salary

Salary Trend Details

## Occupational Analysis

Duty Order Duty Description

### 1 Production Scheduling

Task Order Task Description

- 1 Develop a production schedule based on crop and projected market dates.
- 2 Schedule propagation stages
- 3 Acquire necessary plant materials
- 4 Acquire necessary supporting supplies such as media, containers, mulches, amendments, fertilizers
- 5 Assess tool and equipment needs
- 6 Purchase and schedule repairs of necessary tools and equipment
- 7 Plan pest management scouting, actions, and set thresholds of action
- 8 Plan water management
- 9 Determine current soil fertility and plan fertility management
- 10 Schedule harvest times

### 2 Crop Management

Task Order Task Description

- 1 Prepare planting beds
- 2 Propagate/install plant materials
- 3 Scout for pests and implement planned pest management actions
- 4 Manage field/bed moisture levels
- 5 Monitor field/bed fertility

### 3 Crop Harvest and Handling

Task Order Task Description

- 1 Harvest crops ready for market
- 2 Grade crops for size and quality
- 3 Package crops according to method or type of sale
- 4 Transport product to market
- 5 Care for harvested product to extend saleability

### 4 Marketing and Sales

Task Order Task Description

- 1 Develop methods of marketing product
- 2 Expand customer base
- 3 Serve customers
- 4 Utilizing diverse methods and resources advertise product

## Program Outcomes

Order Description

- 1 Graduate should follow a methodically sustainable approach to small scale food production.
- 2 Graduate should work in compliance with local codes, licensing and permitting requirements.

- 3 Graduate should show competence in performing basic sustainable agriculture methods and techniques.
- 4 Graduate should understand farm facilities design and development to maximize crop production.
- 5 Graduate should show competence in performing basic planting techniques, use of required equipment, and required post-installation care.
- 6 The graduate should utilize sustainable practices in food production.
- 7 Graduate should pursue continued training to maintain knowledge of techniques, technology, and equipment.
- 8 Graduate should display ability to seek and use technical information to diagnose and resolve problems.
- 9 Graduate should communicate knowledgeably and professionally with peers and customers regarding the crop, installations, problems encountered, and resolutions implemented.
- 10 Graduate should display appropriate industry work ethics.

## Curriculum

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Name	Relation	Lect Min	Lab2 Min	Lab3 Min	Intern Min	Clin Min	Cont Min	Cont Hrs	Smst Hrs
HORT 1080 - Pest Management (201412)	NA	1500	1500	0	0	0	3000	60	3
HORT 1100 - Introduction to Sustainable Agriculture (201312) 3 hrs	NA	2250	0	0	0	0	2250	45	3
HORT 1110 - Small Scale Food Production (201412)	NA	1875	1500	1125	0	0	4500	90	4
HORT 1140 - Horticulture Business Management (201412) 3 hrs	NA	1500	1500	0	0	0	3000	60	3
HORT 1410 - Soils (201003) 3 hrs	NA	750	1500	2250	0	0	4500	90	3
Horticulture Elective	NA	-	-	-	-	-	-	-	3

**Total Credit Hours: 19**

## External Standards

*Order Description*

## Admissions Requirements

### Minimum Test Scores

Accuplacer Reading Comp.	55
Accuplacer Sentence Skills	60
Accuplacer Arithmetic	34
Accuplacer Elementary Algebra	N/A

### Minimum Required Age

NA

### High School Diploma or GED Required

For Admission: Yes  
For Graduation: Yes

### Other Admission Conditions

## Program Faculty/Administrative Requirements

Order	Description	Type	Quantity	Minimum Degree
1	Adjunct Instructor	Part time	1	Bachelors

### Other Specific Staff Resources

## Program Faculty/Administrative Requirements

part or in-full Aerator, Backhoe, Ball cart, Bench (greenhouse), Bins (nursery), Blower (backpack), Blowers (mist), Boards (peg), Boots (neoprene), Box scraper, Broom, Brushes, Burlap, Cables (heating), Calculator, Caliper, Carts (hand), Chain (logging), Chipper, Clipboard, Cloth (shade), Compressor (air), Controller watering, Couplers (hose), Dibble, Digger bar, Drills, Eye wash station, Fertility analyzer, Flats (various), Fork (mulch), Fork (pitch), Gauge (rain), Gloves (neoprene), Gun (stapler), Gun (tape), Hammer (claw), Hammer (sledge), Hand tool kit (screwdriver, pliers, wrenches), Heaters, Hoe (garden), Hose (drip irrigation), Hose (low temperature all-weather), Hose (plastic/rubber), Hygrometer (wet/dry bulb), Knife (pocket), Loader bucket, Loader (front end), Magnifiers, Mask (dust), Mattock, Measuring cups and spoons, Meter pH, Meter solubridge, Misting equipment, Mixer soil, Monitor (fertilizer), Monitor (flow), Nails, Nozzle (sprayer), Nozzle (watering), Pipe plastic, Pipe saddles, Plant dolly, Plant ties, Pliers, Plow rollover, Plows, Posthole digger, Pots (clay), Pots (plastic), Pressure regulator, Pruner (hand), Pruner (pole), Pump irrigation, Pump sprayer, Rake (bow), Rake (grading), Rake (leaf), Reel (hose), Rope 1/4" nylon and hemp, Sampler (soil), Saw (bow), Saw (chain), Saw (tree), Saw (circular), Scale (gram), Scoop (hand), Seeder (mechanical), Seeder (broadcast), Sharpening stones, Shears (florist), Shears (lopping), Shovel (round point), Shovel (scoop), Shovel (square point), Skid loader with bucket, Spade (garden), Sprinklers (rotating), Stakes (metal). Outdoor production area (1/4-1 acre), bulk material storage area, classroom with multimedia, male and female restrooms, tool and equipment shed, instructor office. Plant materials, soils, gravel, mulch, fertilizers.