Program Planning Guide

Agriculture Sustainability Certificate (C1541010)

Program Length: 2 semesters
Program Sites: Chatham Main Campus, Day Program
Career Pathway Options: Associate in Applied Science Degree in Sustainable Agriculture; Certificate in Agriculture Sustainability

Suggested Course Schedule		Class	Lab	Work	Credits	Notes:
1st Semester (fall)						
AGR 139	Intro to Sustainable Agriculture	3	0	0	3	
AGR 170	Soil Science	2	2	0	3	
AGR 266	Organic Crop Production: Fall	2	2	0	3	
AGR 267	Permaculture	2	2	0	3	
	Total Semester Hours	**9**	**6**	**0**	**12**	
2nd Semester (spring)						
AGR 121	Biological Pest Management	3	0	0	3	
Select one course:		2	2	0	3	
AGR 265	Organic Crop Production: Spring					
ANS 111	Sustainable Livestock Management					
	Total Semester Hours	**5**	**2**	**0**	**6**	
Total Semester Hours Credit Required for Graduation: 18						

Effective Term: 2023FA

Course Descriptions

AGR 121 Biological Pest Mgmt
This course will emphasize the building and maintaining of healthy soil, plant, and insect biological cycles as the key to pest and disease management. Course content includes study of major pests and diseases, including structure, life cycle, and favored hosts; and biological and least toxic methods of chemical control. Upon completion, students should be able to identify and recommend methods of prevention and control of selected insects and diseases.

AGR 139 Intro to Sustainable Agriculture
This course will provide students with a clear perspective on the principles, history, and practices of sustainable agriculture in our local and global communities. Students will be introduced to the economic, environmental, and social impacts of agriculture. Upon completion, students should be able to identify the principles of sustainable agriculture as they relate to basic production practices.

AGR 170 Soil Science
This course covers the basic principles of soil management and fertilization. Topics include liming, fertilization, soil management, biological properties of soil (including beneficial microorganisms), sustainable land care practices and the impact on soils, and plant nutrients. Upon completion, students should be able to analyze, evaluate, and properly amend soils/media according to sustainable practices.

AGR 265 Organic Crop Production: Spring
This course includes a study of spring organic crop production practices, including vegetables, cut flowers, and culinary and medicinal herbs. Topics include variety selection, production methods, and record keeping procedures for certification. Upon completion, students should be able to demonstrate a knowledge of organic crop production appropriate for the spring season.

AGR 266 Organic Crop Production: Fall
The course includes a study of fall organic crop production practices, including vegetables, cut flowers, and culinary and medicinal herbs. Topics include variety selection, production methods, and record keeping procedures for certification. Upon completion, students should be able to demonstrate a knowledge of organic crop production appropriate for the fall season.

AGR 267 Permaculture
This course introduces the design of sustainable human habitats as part of a sustainable system, with emphasis placed on living systems of the temperate region. Topics include fundamentals of permaculture system design for farms, including gardens, fields, water, animals, buildings, economics, and society. Upon completion, students
should be able to design a functional holistic farm system.

ANS 111 Sustainable Livestock Management
This course covers the integration of livestock as part of a sustainable farming system with emphasis on small-scale production for niche markets and pasture. The course will cover appropriate breed selection, nutrition and living requirements for livestock such as goats, hogs, sheep, poultry, and bees. Upon completion, students should recognize appropriate breeds for their farm needs and demonstrate knowledge of small-scale livestock production.