SEWARD COUNTY COMMUNITY COLLEGE
COURSE SYLLABUS

I. TITLE OF COURSE: AG1713- Exploring Sustainable Agriculture

II. COURSE DESCRIPTION: 3 credit hours
3 **credit hours of lecture and** 0 **credit hours of lab per week.**

This course introduces the topic of natural resource sustainability in agriculture. The course integrates the study of theoretical aspects of agricultural sustainability with both field-based laboratory exercises and participatory hands-on learning of sustainable agriculture practices. For each unit of credit, a minimum of three hours per week with one of the hours for class and two hours for studying/preparation outside of class is expected.

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Pre-requisite: NA

III. PROGRAM AND/OR DEPARTMENT MISSION STATEMENT:

The agricultural program at Seward County Community College/Area Technical School provides opportunities to further each student's knowledge and apply specific methods and techniques to the management and performance of agricultural operations.

IV. TEXTBOOK AND MATERIALS:

Natural Resource Conservation by Daniel D. Chiras and John P. Reganold

V. SCCC OUTCOMES

Students who successfully complete this course will demonstrate the ability to do the following SCCC Outcomes.

I: Read with comprehension, be critical of what they read, and apply knowledge gained to real life
II: Communicate ideas clearly and proficiently in writing, appropriately adjusting content and arrangement for varying audiences, purposes, and situations.
III: Communicate their ideas clearly and proficiently in speaking, appropriately adjusting content fand arrangement for varying audiences, purposes, and situations.

V: Demonstrate the ability to think critically by gathering facts, generating insights, analyzing data, and evaluating information
VI: Exhibit skills in information and technological literacy

VI. COURSE OUTCOMES:

Understand the origins of agriculture and how pre-historic agricultural lands uses influenced the long-term productivity of agro-ecosystems.
Understand the development and dissemination of modern agricultural technologies and land use practices.
Understand the extent of agriculture land use today and how trends in human population growth have and will continue to place additional demands upon agricultural ecosystems.
Understand the agro-ecosystems, environmental quality and human health risks associated with the technologies and land use practices common in modern US agriculture.
Understand the structural organization and processes of natural and agricultural ecosystems
Understand the environmental and social criteria that may be used to determine sustainability in agriculture

Understand the principles and strategies that may be used in the design and management of more sustainable farming systems
Understand the differences and similarities of several types of sustainable agriculture
Understand a command of basic irrigation concepts and terminology and an ability to develop irrigation schedules using qualitative and quantitative methods
Understand the major design and management strategies used to increase sustainability in animal husbandry systems
Understand the principle biodiversity conservation concerns in agriculture and describe strategies for biodiversity conservation in agriculture
Understand the major social and economic obstacles to the adoption of more sustainable farming practices
Understand growth and development in the sustainable and organic food industry, nationally and internationally

VII. COURSE OUTLINE:

1. The History and Development of Agriculture Environmental Quality and Human Health Issues in Modern Agriculture
2. Exploring Sustainability in Agriculture Irrigation and Sustainable Farming Systems
3. Biodiversity Conservation and Sustainable Agriculture
4. Basic Plant Anatomy and Physiology
5. Soil Quality and Sustainable Agriculture
6. Soil Fertility Management and Sustainable Farming Systems
7. Pest Management and Sustainable Farming Systems
8. Irrigation and Sustainable Farming Systems
9. Sustainable Livestock-Based Agricultural Systems
10. Biodiversity Conservation and Sustainable Agriculture The Adoption of Sustainable Farming Practices: Directions for and Obstacles to Change
11. The Growth and Development of Sustainable Agriculture and the Organic Food

VIII. INSTRUCTIONAL METHODS:

Lecture
Discussion
Group Activities
Class Handouts
Video presentation

IX. INSTRUCTIONAL AND RESOURCE MATERIALS:

Class Handouts
Videos
Web Materials

X. METHODS OF ASSESSMENT:

Methods of assessing the general course outcomes and the specific course competencies include class participation, attendance, exam scores, homework assignments, and presentation assignments.
SCCC Outcome #1 will be assessed and measured by class participation and comprehension of material read.
SCCC Outcome #2 will be assessed and measured by written explanations for thoughts and ideas related to soil science through exams and written work.
SCCC Outcome #3 will be assessed and measured by classroom discussions, and oral

presentations.
SCCC Outcome #5 will be assessed and measured by student's decisions regarding interpretations from soil surveys.
SCCC Outcome #6 will be assessed and measured by students use of current soil analysis programs and technologies

XI. ADA STATEMENT:

Under the Americans with Disabilities Act, Seward County Community College will make reasonable accommodations for students with documented disabilities. If you need support or assistance because of a disability, you may be eligible for academic accommodations. Students should identify themselves to the Dean of Students at 620-417-1106 or going to the Student Success Center in the Hobble Academic building, room 149 A.

Syllabus Reviewed: 10/30/2018 20:05:00