

3 credits

Instructors MP Shipka, MG Karlsson, M Zhang

Offered spring semester - T TH 2:00-3:30 PM

Murie Auditorium and Online

Text Toward Sustainable Agricultural Systems in the 21st Century

Week 1 1/16 1/18	Chapter 1 in TSAS* (p. 15-41) What is Sustainable Agriculture? Overview Concepts and themes Three legs of sustainable agriculture Economic, social, and political context Quiz 1 - Due 1/23 before 2:00 PM	Shipka
Week 2 1/23 1/25	Chapter 2 in TSAS* (p. 43-82) Farming and Natural Resources Is organic agriculture the same as sustainable agriculture? Agroecology Quiz 2 - Due 1/30 before 2:00 PM <u>Assignment I</u> (covers material in weeks 1 & 2) Lundberg Family Farms (p. 371-376) Due 2/1 by 2:00 PM	Shipka
Week 3 1/30 2/1	Chapter 3 in TSAS* (p. 83-97) Sustainable Soil Management Conservation tilling Cover cropping Quiz 3 - Due 2/6 before 2:00 PM	Zhang
Week 4 2/6 2/8	Chapter 3 in TSAS* (p. 122-131) Sustainable Soil Management Mass balance Soil tests Compost Quiz 4 - Due 2/13 before 2:00 PM	Zhang
Week 5 2/13 2/15	Chapter 3 in TSAS* (p. 110-122) Sustainable Field Crop Production Concepts Agronomy Irrigation Water quality management Quiz 5 - Due 2/20 before 2:00 PM	Zhang
Week 6 2/20 2/22	Chapter 3 in TSAS* (p. 97-110) Sustainable Field Crop Production Concepts Agronomy Crop rotations Intercropping Cultivar mixtures Quiz 6 - Due 2/27 before 2:00 PM	Zhang

Week 7      Reading Assignment: Sustainable Soil Management System  
Guide (available on Blackboard one week prior to class period)

2/27      Sustainable Soil Management      Systems Management  
                 Principles and characteristics of sustainable Soil

3/1                   Management steps to improve soil quality  
                 Examples of sustainable soil builders

Quiz 7 - Due 3/6 before 2:00 PM  
Assignment II

Week 14	Chapter 5 in TSAS* (p. 233-249) Sustainable Animal Production Concepts	Shipka
4/17	Animal welfare	
4/19	Animal behavior Quiz 13 - Due 4/24 before 2:00 PM	
Week 15	Chapter 5 in TSAS* (p. 233-249) Sustainable Animal Production Concepts	Shipka
4/24	Integrated livestock management system	
4/26	Systems management	
	Ecological & sustainable livestock production systems Quiz 14 - Due 5/1 before 2:00 PM <u>Assignment IV</u> (covers material in weeks 13, 14 & 15) Brookview Farm (p. 366-370) & Goldmine Farm (p. 463-472) Due 5/1 by 10:00 AM	

\*Towards Sustainable Agriculture Systems in the 21st Century.

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- 1) Attend the lectures,
  - 2) Take good notes,
  - 3) Read the assigned readings before class,
  - 4) Download the PPT before or right after class,
  - 5) Go back through your notes and the PPT soon after class, and
  - 6) Complete take-home quizzes and the four case study assignments on time.

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Students will have weekly take-home quizzes. The quizzes will be available on UAF Blackboard on Thursday and due the following Tuesday before 2:00 PM. Each quiz is worth 10 points for a total of 140 points. There will also be four web-based case study assignments administered through Blackboard. Each assignment will cover topics since the previous assignment as well as build on materials presented throughout. Each assignment is worth 100 points for a total of 400 points. The students will have one week to complete each case study assignment from the time it is available on Blackboard.

Ten points will be p

