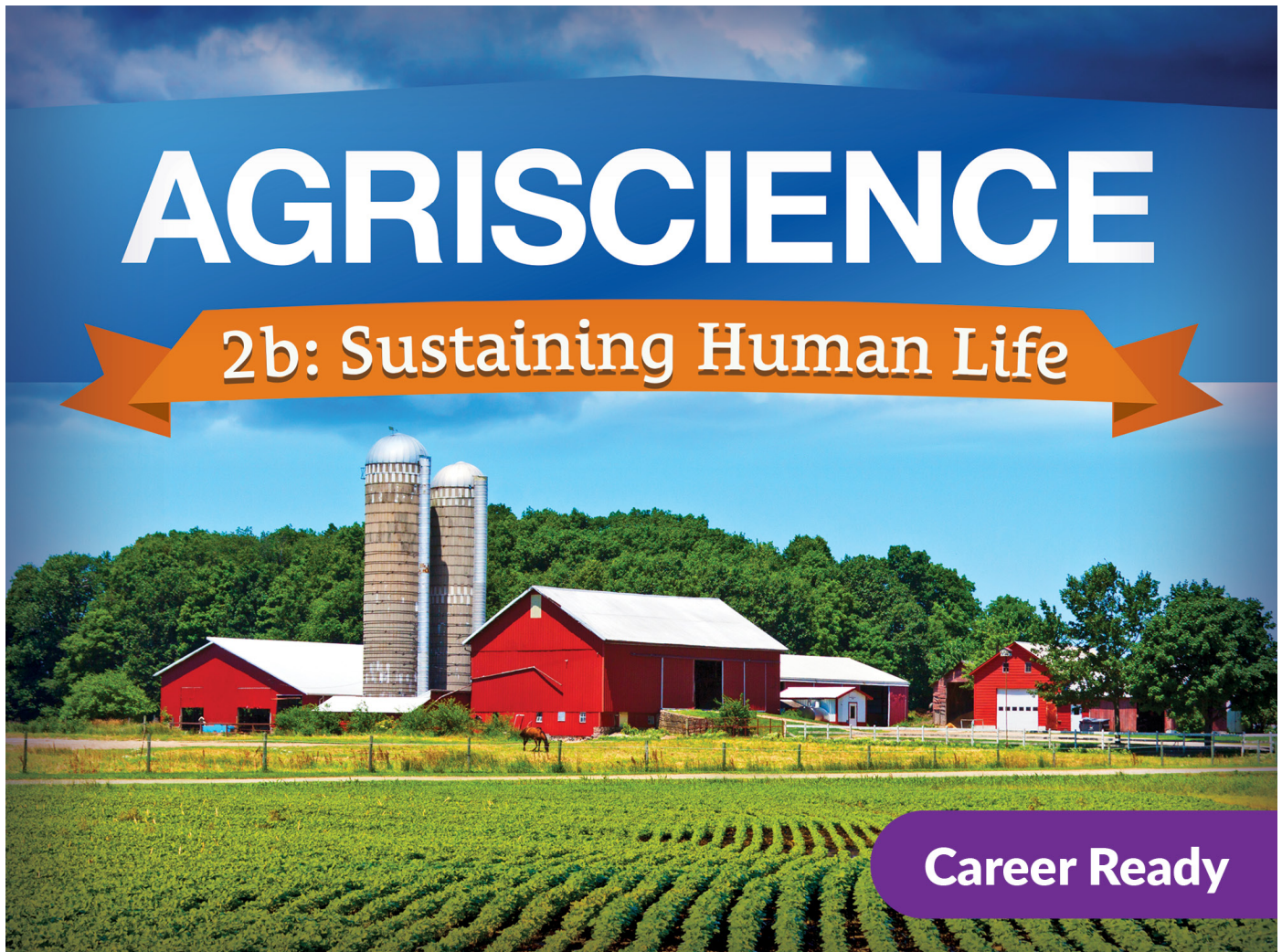


Course Syllabus

What you will learn in this course



Agriscience 2b: Sustaining Human Life

Are you ready to embark on a botanical adventure? From home gardens to farms, dive into the world of plants and discover how to keep your plants thriving! This course provides an overview of the principles of landscape design, including the tools that help with planning and application to residential projects. Learn how to transplant and propagate, manage pests and diseases, and keep plants healthy through the proper use of pruning and weeding. Explore horticulture's impact on the environment and the role that you play. This course is your ticket to a greener and more vibrant world.

Unit 1: Landscape Design

If you've ever admired a beautifully landscaped yard or garden and wondered how it all came together, then this unit is the one for you! Many techniques and design principles are used to enhance the

aesthetics and mood that a landscape can provide. You might also be surprised to learn that you can take some simple steps to help create a space that is beautiful and functional yet eco-friendly because it uses minimal resources. Let's dive into all things related to landscape design!

What will you learn in this unit?

After studying this unit, you will be able to:

1. Compare and contrast landscape design elements
2. Identify landscape design principles
3. Explore steps to draw or design a landscape plan
4. Discuss the principles of Florida-Friendly Landscaping (FFL)

Unit 1 Assignments	
Assignment	Type
Lesson 01: Landscape Design Elements	Lesson
Lesson 02: Landscape Design Principles	Lesson
Lesson 03: Landscape Design Planning	Lesson
Lesson 04: Florida-Friendly Landscaping	Lesson
Critical Thinking Questions	Submission
Activity: What Do I Want to Learn?	Submission
Cumulative Project 1: What Landscape Would I Like to Develop?	Submission
Unit 1 Discussion 1	Discussion
Unit 1 Discussion 2	Discussion
Unit 1 Quiz	Multiple Choice

Unit 2: Classifying Indoor and Outdoor Plants

Have you ever wondered why someone might call a plant a name that's different than the one you know? For example, imagine that you've just purchased a great-looking snake plant. A dinner guest compliments the unique coloring of your amazing mother-in-law's tongue. Then, a neighbor pops over and comments on all the new growth on your Saint George's sword. Wait—what? Is that plant really

known by all those different names? Yep. They're all names for *Dracaena trifasciata*. It's not uncommon for plants to have lots of different names. That's why plant classification and plant taxonomy are so important! If you are working on a landscape project or selecting plants for your home interior or yard, knowing how plants are classified ensures that you get what you want. Let's check out some of the ways that plants are organized and what they need to thrive in your space and enhance your life!

What will you learn in this unit?

After studying this unit, you will be able to:

1. Classify plants based on their life cycles
2. Distinguish common indoor plants
3. Analyze the needs of indoor plants and assess their benefits
4. Differentiate between common outdoor landscape plants

Unit 2 Assignments	
Assignment	Type
Lesson 01: Classifying Plants	Lesson
Lesson 02: Common Indoor Plants	Lesson
Lesson 03: Benefits and Needs of Indoor Plants	Lesson
Lesson 04: Outdoor Plants	Lesson
Critical Thinking Questions	Submission
Cumulative Project 2: How Can I Decorate a Windowsill?	Submission
Cumulative Project 3: Which Plants Will I Include in My Landscape?	Submission
Unit 2 Discussion 1	Discussion
Unit 2 Discussion 2	Discussion
Unit 2 Quiz	Multiple Choice

Unit 3: Soil Science

When you hear the word “soil,” do you immediately think of dirt? Whether you realize it yet or not, the scope of what soil is extends far beyond that four-letter word. Soil is a resource that is vital not only to

food production but also to the environmental health of our local and global communities as it has life-giving features that help to sustain our existence on Earth as we know it. Soil is actually considered a renewable resource; however, the process of soil development is so slow that it's essential to preserve what we already have through conservation efforts and best management practices. Let's check out some of the facilities and systems in which soil and even soil alternatives can be used for successful plant production.

What will you learn in this unit?

After studying this unit, you will be able to:

1. Identify plant growing facilities and container types
2. Describe how soils are classified
3. Investigate how soil quality is determined and tested
4. Compare and contrast soil alternatives

Unit 3 Assignments	
Assignment	Type
Lesson 01: Growing Structures and Containers	Lesson
Lesson 02: Classifying Soil	Lesson
Lesson 03: Soil Quality and Erosion	Lesson
Lesson 04: Soil Alternatives	Lesson
Critical Thinking Questions	Submission
Activity: How Can I Evaluate My Soil?	Submission
Cumulative Project 4: How Will I Protect My Landscape Against Erosion?	Submission
Unit 3 Discussion 1	Discussion
Unit 3 Discussion 2	Discussion
Unit 3 Quiz	Multiple Choice

Unit 4: Fertilizers

What kind of fertilizer do I need for my garden? Is it different than what I need to apply to my lawn? Do I need to know any special steps before I use fertilizer either at home or on the job? If you have asked yourself any of these questions, then this is the right unit for you to explore. There are so many options and methods for applying fertilizer to plants that the choices can seem overwhelming. However, if you follow the instructions on the fertilizer's label and have the right tools, you can manage plant nutrients and help keep your houseplants and lawns looking nice year-round!

What will you learn in this unit?

After studying this unit, you will be able to:

1. Differentiate between types and kinds of fertilizers
2. Apply best management practices for fertilizer application
3. Interpret fertilizer needs based on the type of plant
4. Describe application methods for fertilizers

Unit 4 Assignments	
Assignment	Type
Lesson 01: Types of Fertilizer	Lesson
Lesson 02: Best Management Practices	Lesson
Lesson 03: Fertilizer Recommendations	Lesson
Lesson 04: Fertilizer Application	Lesson
Critical Thinking Questions	Submission
Activity: What Have I Learned So Far?	Submission
Cumulative Project 5: What Fertilizers Does My Landscape Design Require?	Submission
Unit 4 Discussion 1	Discussion
Unit 4 Discussion 2	Discussion
Unit 4 Quiz	Multiple Choice

Midterm Exam

1. Review information acquired and mastered from this course up to this point.
2. Take a course exam based on material from the **first half** of the course (**Note:** You will be able to open this exam only one time.)

Midterm Exam Assignments	
Assignment	Type
Midterm Exam	Multiple Choice
Midterm Discussion	Discussion

Unit 5: Plant Diseases and Pests

The impacts of pests and diseases are felt by plants and their growers all around the world.

Understanding how plant pathogens spread and the pests that often introduce them is the first step in learning how to combat the challenges that they present, whether in the home, in your garden, or in production. Regardless of your career goals, a solid understanding of the life cycles of insects, an in-depth knowledge of available controls for pests and pathogens, and a strong awareness of the best safety practices when applying these chemicals can serve you well throughout your lifetime.

What will you learn in this unit?

After studying this unit, you will be able to:

1. Describe the most common plant pathogens
2. Characterize the feeding habits and life cycles of pests
3. Explain proper use and safety regarding chemical pesticides
4. Discuss the steps to follow in an integrated pest management program

Unit 5 Assignments	
Assignment	Type
Lesson 01: Plant Diseases	Lesson
Lesson 02: All About Pests: Their Feeding Habits and Life Cycles	Lesson
Lesson 03: Chemical Pest Management	Lesson
Lesson 04: Integrated Pest Management	Lesson
Critical Thinking Questions	Submission
Cumulative Project 6: How Can I Protect Plants Against Pests?	Submission
Activity: How Can I Identify Pest Risks in My Area?	Submission
Unit 5 Discussion 1	Discussion
Unit 5 Discussion 2	Discussion
Unit 5 Quiz	Multiple Choice

Unit 6: Environmental Impacts and Plants

Horticulture brings a number of benefits to the environment and the community, enhancing the beauty of an area and increasing the value of properties while helping prevent soil erosion, absorb pollutants, and provide wildlife habitats. To reap these benefits, however, responsible stewardship of land, fertilizers, and pesticides must be maintained by everyone from the large-scale producers all the way down to the home gardener. In this unit, we'll explore how you can help play a role in utilizing sustainable horticulture practices in your home, community, and beyond.

What will you learn in this unit?

After studying this unit, you will be able to:

1. Describe the importance of horticulture to the environment, including best practices for sustainability
2. Explain the concept of nonpoint source pollution and the watershed environment
3. Identify best management practices to reduce pollution and conserve water
4. Evaluate land selection and conservation practices to maximize productivity and increase stewardship

Unit 6 Assignments	
Assignment	Type
Lesson 01: Horticulture and the Environment	Lesson
Lesson 02: Water Pollution	Lesson
Lesson 03: Best Management Practices	Lesson
Lesson 04: Land Selection and Practices	Lesson
Critical Thinking Questions	Submission
Cumulative Project 7: How Will My Design Affect the Environment?	Submission
Activity: How Would I Evaluate a Site for Sustainable Development?	Submission
Unit 6 Discussion 1	Discussion
Unit 6 Discussion 2	Discussion
Unit 6 Quiz	Multiple Choice

Unit 7: Landscape Maintenance: Pruning and Weeding

Did you know that a well-maintained landscape can add as much as 14 percent of value to your home? Many homeowners make big investments in their general landscaping maintenance, lawn care, and upkeep. Regardless of the type of landscape for which you're responsible, there are a variety of maintenance skills and tools that are useful for you to know, including those required for pruning and weeding. In addition, knowing which options for turfgrasses are available can help you determine which type is best suited to your needs.

What will you learn in this unit?

After studying this unit, you will be able to:

1. Explain proper pruning techniques
2. Categorize common Florida weeds and their control methods
3. Differentiate between appropriate pruning and weeding tools
4. Compare and contrast varieties of turfgrass

Unit 7 Assignments	
Assignment	Type
Lesson 01: Pruning	Lesson
Lesson 02: Weed Management	Lesson
Lesson 03: Tools	Lesson
Lesson 04: Turf	Lesson
Critical Thinking Questions	Submission
Cumulative Project 8: Which Tools Does My Landscape Need?	Submission
Cumulative Project 9: How Can I Safely Store Pesticides and Fertilizers?	Submission
Unit 7 Discussion 1	Discussion
Unit 7 Discussion 2	Discussion
Unit 7 Quiz	Multiple Choice

Unit 8: The Business of Horticulture

Offering flexible work hours is a great way to attract someone to a job. A study in 2021 revealed that over 50 percent of respondents felt that flexible working hours were the most important to them when considering job opportunities. If you're looking for flexibility in your career, you can choose to seek employment that offers this, or you could start your own business! In this unit, we will explore the free-enterprise system. We will also discuss how to prepare for an interview, hire someone, interact with customers, and manage a retail business successfully.

What will you learn in this unit?

After studying this unit, you will be able to:

1. Explore the concept of the free-market system
2. Summarize how to prepare for an interview and what to look for when hiring someone
3. Describe methods for improving client communication and expectations
4. Differentiate the major areas of retail business, including profit, pricing, and sales techniques

Unit 8 Assignments	
Assignment	Type
Lesson 01: Business Ownership	Lesson
Lesson 02: Interviews and Desirable Employee Characteristics	Lesson
Lesson 03: Managing Customers	Lesson
Lesson 04: Retail Business	Lesson
Critical Thinking Questions	Submission
Final Cumulative Project: How Can I Present My Design Ideas?	Submission
Activity: What Did I Get from This Course?	Submission
Unit 8 Discussion 1	Discussion
Unit 8 Discussion 2	Discussion
Unit 8 Quiz	Multiple Choice

Final Exam

1. Review information acquired and mastered from this course up to this point.
2. Take a course exam based on material from the **second half** of the course (**Note:** You will be able to open this exam only one time.)

Final Exam Assignments	
Assignment	Type
Final Exam	Multiple Choice
Final Discussion	Discussion

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