DAKOTA COLLEGE AT BOTTINEAU

COURSE SYLLABUS

Course Prefix/Number/Title: **PLSC 210 Horticulture Science**

Number of Credits: 4

Course Description:

Principles of plant classification, structure, function, growth, propagation, culture, and use of horticultural crops. Covers vegetable and fruit production in the home garden, growing flowers and planting flower beds, and landscaping principles and materials.

Pre-/Co-requisites: None

Course Objectives:

This course will help you to develop the necessary skills and knowledge you need to become proficient in a wide range of horticultural subjects and will become the foundation for your future horticultural careers as well as building on your current knowledge and understanding.

To become familiar with plant classification.
To understand and assess how plants function, grow and develop.
To develop the introductory skills necessary for successful propagation and pruning.
To understand the mechanisms of pest and disease issues and control.
To become confident and competent in performing horticulture science skills.
To understand the global influence of horticulture and how it impacts our daily lives.
To understand the dynamics of horticultural business operations and develop leadership skills.

Instructor: Joseph Pancoast

Office: Molberg 21

Office Hours: M W F 10:00am-11:00am or by appointment

Email: joseph.pancoast@dakotacollege.edu

Lecture/Lab Schedule: M T W F 3:00pm-3:50pm (TBA: Lab day- Tue or Friday from 3:00-3:50)

Textbook(s): Introductory Horticulture (9th Ed.) Shry & Reiley, Applied Principle of Horticultural Science (3rd Ed.) Brown

Course Requirements:

Students' knowledge and understanding of the reading and supplemental materials will be assessed through exams, critical thinking assignments, assignments, labs and presentations. Grading is based on a standard curve, where students earn a grade based upon the percent of total possible points they obtain. Although, slight modification may occur based on the discretion of the instructors. Any missed exam or assignment not submitted in the allotted time will be given a zero (10% will be deducted every day then a zero will be given on day seven). Note: Late work

allotted time is reduced for any assignment or exam at the end of the semester.

Tentative Course Outline:

Plant Taxonomy, Plant Growth and Functions, Propagation Methods, Pruning Techniques, Greenhouse Management, Integrated Pest Management (IPM), Container and Landscape Planting, Lawn and Turfgrass Management, Fruit and Vegetable Growing, Business Operations, Technology Advancements and Leadership Development.

Week 1 - Units 1 & 2 Exploring the Horticulture Field / Plant Taxonomy: How Plants are Named. Discussion, Videos, LAB, Crop Choice Assignment Overview.
Week 2 - Units 3,4 & 5 Parts of the Plant and Their Functions / Environmental Requirements for Good Plant Growth / Growth Stimulants, Retardants, and Rooting hormones.
Discussion, Videos, LAB, Crop Choice Assignment Part 1.
Week 3 - Unit 6, 7 & 8 Seeds / Softwood and Semihardwood Cuttings and Micropropagation / Hardwood Cuttings.
Discussion, Videos, LAB.
Week 4 - Units 9,10,11 & 12 Separation and Division / Grafting / Budding and Layering. Discussion, Videos, LAB,
Week 5 - Units 16 & 17 Integrated Pest Management and the Biological Control of Pests and Diseases / The Safe Use of Pesticides/Biopesticides.
Discussion, Videos, LAB.
Week 6 - Units 18,19 & 20 Insecticides / Fungicides, Rodenticides, Molluscicides, and Nematodes / Herbicides.
Discussion, Videos, LAB, Crop Choice Assignment Part 2.
Week 7 - Units 25,26 & 27 Annual Bedding Plants / Perennials, Ornamental Grasses, Vines, Bamboo's and Prairie Gardens / Narrowleaf Evergreens.
Discussion, Videos, LAB.
Week 8 - Units 28,29,30 & 31 Broadleaf Evergreens / Deciduous Trees / Deciduous Shrubs / Ground Covers / Bulbs.
Discussion, Videos, LAB + Mid-Term.
Week 9 - Units 13,14 & 15 Poinsettias, Chrysanthemums and Easter Lilies.
Discussion, Videos, LAB.
Week 10 - Units 33 & 34 Pruning Techniques / Principles of Landscaping, Maintenance, Xeriscaping, Water Gardens, Irrigation and Green Roofs.
Discussion, Videos, LAB, Crop Choice Assignment Part 3.
Week 11 - Units 35,36 & 37 Establishing the Lawn / Maintaining the Lawn / Renovating the Lawn. Discussion, Videos, LAB.
Week 12 - Units 23 & 24 The Interior Plantscape: Houseplants and Plantscaping / Shrubs and Trees. Discussion, Videos, LAB,
Week 13 - Units 38,39,40 & 41 Planning and Preparing the Garden Site / Planting the Vegetable Garden / Caring for the Vegetable Garden / Favorite Garden Vegetables and Herbs.
Discussion, Videos, LAB.
Week 14 - Units 42,43,44,45 & 46 Strawberries / Blueberries / The Bramble Family / Grapes / Nut Crops. Discussion, Videos, LAB, Crop Choice Assignment Part 4.

Week 15 - Units 52,53 & 54 Beginning a Horticultural Enterprise / Financial Operations of a Horticultural Business / Human Relations: Personnel Management and Customer Sales.
Discussion, Videos, LAB.
Week 16 - Units 55,56 & 57 Business Communications / Horticulture in the Age of Technology / Leadership Development in Horticulture.
Discussion, Videos, LAB. + Course Reflection.
Finals Week
Final exam

Assessments: Assessments cover the material presented each and are worth 25 points each. The quizzes are open book and open notes. Each quiz will be due at the end of the day (11:59pm) on the due date it is assigned which is listed in the syllabus.

Participation/Discussion Boards: Students are expected to participate in discussion board on topics related to the class throughout the semester. The purpose will be to discuss and learn from each other. It is important that students be respectful of each other's opinions. The requirements for each discussion will be outlined when the discussion begins. In order to be effective, we all must participate and respond to each other in a timely manner. Discussions will be available for one to two weeks and students must complete them during that time frame.

Grading and Evaluation:

Letter Grade	Points (Percent)
A	(89.5% - 100%)
B	(79.5% - 89.4%)
C	(69.5% - 79.4%)
D	(59.5% - 69.4%)
F	(<59.5%)

General Education Competency/Learning Outcome(s) OR CTE Competency/Department Learning Outcome(s):

This course meets the CTE department learning outcome of employing industry-specific skills in preparation for workplace readiness by:

1. Expanding critical thinking competence.
    a. Students will develop understanding of how pathogens and plants interact.
    b. Students will demonstrate knowledge of how people influence plant disease epidemics.

c. Students will apply their understanding of plant diseases and how they can be managed to different scenarios.

Classroom Policies:

1. Please no hot food in the classroom. Its delicious aroma would be distracting for the instructor and other students. 😋
2. Attend classes and especially labs on time. If late or missing lab points may be deducted.

Student Email Policy:

Dakota College at Bottineau is increasingly dependent upon email as an official form of communication. A student's campus-assigned email address will be the only one recognized by the Campus for official mailings. The liability for missing or not acting upon important information conveyed via campus email rests with the student.

Academic Integrity:

According to the DCB Student Handbook, students are responsible for submitting their own work. Students who cooperate on oral or written examinations or work without authorization share the responsibility for violation of academic principles, and the students are subject to disciplinary action even when one of the students is not enrolled in the course where the violation occurred. The Code detailed in the Academic Honesty/Dishonesty section of the Student Handbook will serve as the guideline for cases where cheating, plagiarism or other academic improprieties have occurred.

Disabilities or Special Needs:

Students with disabilities or special needs (academic or otherwise) are encouraged to contact the instructor and Disability Support Services.

Title IX:

Dakota College at Bottineau (DCB) faculty are committed to helping create a safe learning environment for all students and for the College as a whole. Please be aware that all DCB employees (other than those designated as confidential resources such as advocates, counselors, clergy and healthcare providers) are required to report information about such discrimination and harassment to the College Title IX Coordinator. This means that if a student tells a faculty member about a situation of sexual harassment or sexual violence, or other related misconduct, the faculty member must share that information with the College's Title IX Coordinator. Students wishing to speak to a confidential employee who does not have this reporting responsibility can find a list of resources on the DCB Title IX webpage.

AI Student Policy:

Unless otherwise indicated in the course syllabus, or in individual instructions for course assignments, or in the absence of the express consent of the course instructor, students are not allowed to utilize generative AI to help produce any of their academic work. Any violation of this policy will be considered an act of academic dishonesty as outlined within the Dakota College Code of Student Life.