

## Dakota College at Bottineau Course Syllabus

### PLSC 210: Horticulture Science

**Number of credits:** 4 credits

**Fall Semester 2019**

#### **Description:**

Horticulture Science will help students become literate in the field of horticulture. By completing this course, students will have a workable knowledge of the classification of horticultural plants, the structure and function of plants and become familiar with plant growth and reproduction, control of light, temperature and fertilization and methods of propagation, pruning, training and production. Students will also become familiar with the marketing of major horticulture crops.

#### **Course Objectives:**

Upon completion of this class, students will;

1. Understand the basic principles of plant structure, growth and development.
2. Understand principles of Horticulture
3. Perform horticultural practices
4. Apply principles and practices of horticulture to new situations
5. Locate reliable sources of information of horticulture products
6. Recognize the influence of horticulture on human life.

**Instructor:** Amy Koehler

**Office:** Molberg Center; Room 27

**Office Hours:** By arrangement

**Phone:** 701-228-5605

**Email:** [amy.koehler@dakotacollege.edu](mailto:amy.koehler@dakotacollege.edu)

#### **Lecture/Lab Schedule:**

MWF 9:00am-9:50am Lab Thurs 9-10:50am \*DCB section

#### **Textbook(s): Recommended**

Introductory Horticulture 9<sup>th</sup> Edition

Carroll Shry, Edward Reiley

Cengage Learning

ISBN# 978-1285424729

Practical Horticulture 7th Edition

Laura Williams Rice

Robert P. Rice Jr.

Prentice Hall Publishers

ISBN# 978-0-13-5038666

#### **Course Requirements:**

Three hourly exams (100 pts each)

Weekly lab assignments/participation (10 pts each)

Semester Writing Exercise (100 pts)

Article presentations (25 pts each) and Reflective writing (30 pts each)

Assigned Class Presentations (10 pts each)

Lecture Participation (10 pts each)

International Peace Garden Field Trip Participation (60 pts)

**Reflective Writing Assignments** will be assigned with prompts throughout the semester and graded based on a rubric that looks for addressing of prompt, depth of understanding, use of technical information, language use, and overall synthesis of content. This is a powerful learning tool as it integrates experience with knowledge gathering and seeks to integrate the two to demonstrate higher level learning than what would be assessed in examinations.

**Semester Writing Exercise** will require you to select a horticultural crop of your interest by the second week of class. A crop may be of ornamental, medicinal, fiber or nutritional (You may **not** choose one of the crops featured in “Botany of Desire”). The paper will be developed over the entire semester in five sections; 1) history of the crop, i.e., climatic, soil and regional origin, role in human culture, etc.; 2) culture and production of the crop; 3) pest management issues that might include potential for organic production; and 4) role of the crop in modern society including a discussion of emerging issues associated with the crop.

You will have about three-four weeks per section. During those weeks you will have some time during class to discuss your paper with the instructor, research your topic, and will be required to submit a draft for peer review to your fellow students. The draft copies must be submitted with your section at the end of each three-week period. Additionally, you will be permitted to continue enhancing each section throughout the semester, so as to make it a “living” work. Your final grade for the exercise will be based on the depth of your exploration, ability to utilize resources, and articulation and integration of topics in the final submission.

**\*Field Trips will be taken as part of this class in order to gain experience and exposure to the Industries involved in Horticulture Science. (DCB section only)**

**\*The instructor reserves the right to modify this syllabus and course requirements at any time.**

**GRADING:** Grading is based on a standard college curve, where students earn a grade based upon the percent of total possible points they obtain. Any missed exam or assignment not made up within the allotted time will be given a zero. The “allotted time” given is at the discretion of the instructor and will be communicated to the students throughout the course. (Note: It is the responsibility of the student to schedule make-up work with the instructor at a time convenient to both parties.) Final letter grades are assigned based on the following criteria:

**A = 90-100% of the total points**

**B = 80-90% of the total points**

**C = 70-80% of the total points**

**D = 60-70% of the total points**

**F = <60% of the total points**

**Tentative Course Outline/Topics:**

**\* Note September 13<sup>th</sup> there will be scheduled a \*mandatory all day field trip to the International Peace Garden**

**\*\* Travel to the International Peace Garden. Mandatory attendance.**

**(Identification required is a minimum of an official birth certificate and photo ID. A passport or passport card is preferred).**

**\*Note Sometime in November there will be scheduled a \*mandatory field trip to Lowes Garden Center in Minot, ND**

**\*Only mandatory for DCB section    \*Labs listed for DCB section**

Week/Unit	Topics and Assignments
1 Horticulture: An Introduction	<b>Monday: No Class</b> <b>Wednesday:</b> Introduction to course, History of Horticulture <b>Friday;</b> The “Green Industry” and Careers in Horticulture; <b>Lab: No Lab</b>
2 Botany of Desire	<b>Monday: No Class</b> <b>Wednesday:</b> Botany of Desire Video <b>Friday:</b> Botany of Desire Video <b>Lab:</b> Wash n’ Pack
3 Semester Writing Exercise  <b>Field Trip to the International Peace Garden-All Day</b>	<b>Monday:</b> The art of reading a scientific article/paper; Semester Writing Exercise <b>Wednesday:</b> Library session working on paper and resources <b>Friday:</b> Article Presentations; Reflective Writing; <b>Readings: TBD</b> <b>Lab: Field Trip to the International Peace Garden</b> <b>Travel to the International Peace Garden. Mandatory attendance.</b> <b>(Identification required is a minimum of an official birth certificate and photo ID. A passport or passport card is preferred).</b>  We will leave campus at 9am and return by 3pm. You will need to bring a sack lunch. This is a mandatory Trip. I will let your other instructors know beforehand to excuse you from any classes you may miss. If there is a conflict that cannot be resolved, <b>you must let me know at least 2 weeks before the trip.</b>
4 Plant Science	<b>Monday:</b> Plant Taxonomy: How Plants are Named; Parts of the Plant and Their Function <b>Wednesday:</b> Environmental requirements for good plant growth; Growth stimulants, retardants, and rooting hormones <b>Friday:</b> Article Presentations; Reflective Writing; <b>Readings: TBD</b> <b>Lab:</b> Composting
5 Plant Propagation	<b>Monday:</b> Seeds; Softwood and semihardwood Cuttings and Micropropagation; Hardwood Cuttings <b>Wednesday:</b> Separation and Division; Grafting; Budding; Layering <b>Friday:</b> Article Presentations; Reflective Writing; <b>Readings: TBD</b> <b>Lab:</b> Plant parts scavenger hunt (40pts)
6 <b>Exam 1</b>	<b>Monday:</b> Exam Review/catch up <b>Wednesday:</b> Exam 1 <b>Friday:</b> Article Presentations; Reflective Writing; <b>Readings: TBD</b> <b>Lab:</b> Horticultural Equipment

Week/Unit	Topics and Assignments
7 Integrated Pest Management; Intro to Organic Production	<b>Monday:</b> IPM <b>Wednesday:</b> Intro to Organic Production <b>Friday:</b> Video <b>Readings:</b> TBD <b>Lab:</b> No Lab
8 Greenhouse and Related Climate-Controlling structures	<b>Monday: No Class</b> <b>Wednesday:</b> Greenhouse and Related Climate-Controlling structures <b>Friday:</b> Article Presentations; Reflective Writing; <b>Readings:</b> TBD <b>Lab:</b> Pest Scouting
9 Growing Plants Indoors	<b>Monday:</b> Indoor Plant Maintenance <b>Wednesday:</b> Media Fertilizers and Watering <b>Friday:</b> Article Presentations; Reflective Writing <b>Readings:</b> TBD <b>Lab:</b> TBD
10 Growing Plants Indoors	<b>Monday:</b> Light and Indoor Plant Growth <b>Wednesday:</b> Catch-up <b>Friday:</b> Article Presentations; Reflective Writing <b>Readings:</b> TBD <b>Lab:</b> Greenhouse Lighting Tour, garden clean-up
11 <b>Exam 2</b>	<b>Monday:</b> Exam Review/catch up <b>Wednesday:</b> Exam 2 <b>Friday:</b> Article Presentations; Reflective Writing; <b>Readings:</b> TBD <b>Lab: Field Trip to Lowes Garden Center, Minot *Tentative*</b>
12 The Vegetable Garden	<b>Monday: No School</b> <b>Wednesday:</b> Vegetable Gardening <b>Friday:</b> Article Presentations; Reflective Writing <b>Readings:</b> TBD <b>Lab:</b> TBD
13 Using Plants in the Landscape	<b>Monday:</b> Using Plants in the Landscape <b>Wednesday:</b> Using Plants in the Landscape <b>Friday:</b> Article Presentations; Reflective Writing <b>Readings:</b> TBD <b>Lab:</b> Seeding
14 Principles of Landscaping, Maintenance, Xeriscaping, Water Gardens, Irrigation, and Greenroofs  Turf and Lawn Management	<b>Monday:</b> Principles of Landscaping, Maintenance, Xeriscaping, Water Gardens, Irrigation, and Greenroofs <b>Wednesday:</b> Turf and Lawn Management <b>Friday:</b> No School <b>Readings:</b> TBD <b>Lab:</b> No School
15 Business Operations Semester Writing Exercise	<b>Monday:</b> Business Operations <b>Wednesday:</b> Semester Writing Exercise <b>Friday:</b> Article Presentations; Reflective Writing <b>Readings:</b> TBD <b>Lab:</b> Transplanting

Week/Unit	Topics and Assignments
16 Exam 3	<b>Monday:</b> Exam Review/catch up <b>Wednesday:</b> Exam Review <b>Friday:</b> Exam 3 <b>Readings:</b> TBD <b>Lab:</b> Succulent/House Plant Sale
Finals Week	<b>Semester Writing Exercise Due Wednesday</b>

**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:** All students are expected to excel to the best of their ability. Students must adhere to the highest standards of academic integrity. Dishonesty in the classroom or laboratory and with assignments, quizzes and exams is a serious offense and is subject to disciplinary action by the instructor and college administration. For more information, refer to the student handbook.

**Plagiarism:** The strength Dakota College at Bottineau depends on academic and personal integrity. In this course, you must be honest and truthful. Plagiarism is the use of someone else's work, words, or ideas as if they were your own. Here are three reasons not to do it:

- By far the deepest consequence to plagiarizing is the detriment to your intellectual and moral development: you won't learn anything, and your ethics will be corrupted.
- Giving credit where it's due but adding your own reflection will get you higher grades than putting your name on someone else's work. In an academic context, it counts more to show your ideas in conversation than to try to present them as *sui generis*.
- **This means absolutely not cut and pasting directly into your assignment from other sources. I want everything is your own words!**
- Finally, all students are expected to adhere to the highest standards of academic integrity. Students must complete all work themselves. Cheating or plagiarism is a serious offense and is subject to disciplinary action by the instructor and the college administration. Please be sure to review the Student Handbook. **The consequences of plagiarism in this class depend on the level exhibited, but are at a minimum a failing grade on the assignment up to failing the class.**

#### **Disabilities and Special Needs:**

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact your instructor and the Learning Center (701-228-5479) as early as possible during the beginning of the semester.

#### **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. If you have experienced any form of gender or sex-based discrimination or harassment, including non-consensual sexual intercourse, sexual harassment, relationship violence, or stalking, know that help and support are available.

DCB has staff members trained to support survivors in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, and more. The College strongly encourages all students to report any such incidents to the College Title IX Coordinator.

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 you tell 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. If you wish to speak to a confidential employee who does not have this reporting responsibility, you can find a list of resources on the Title IX website. [www.dakotacollege.edu/student-life/safety/title-ix](http://www.dakotacollege.edu/student-life/safety/title-ix)