

Dakota College @ Bottineau Course Syllabus

Hort. 181 Specialty Food Crops

Spring Semester 2020: 2 credits

Course Description:

Production and physiological principles involved in growing vegetable, herb and fruit crops. Emphasis being placed on plants suitable for market gardening and farmer's markets.

Course Objectives:

To understand general principles of vegetable, herb and fruit production

To know specific facts about vegetable and fruit production

Identification of common fruits and vegetables

Instructor: Amy Koehler

Office: Molberg 27

Office Hours: By Appointment

Phone:

701-228-5605

Email:

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Textbook(s):

-2018 or 2019 *Midwest Vegetable Production Guide for Commercial Growers* (free PDF download found here:

<https://ag.purdue.edu/btny/midwest-vegetable-guide/Pages/default.aspx>)

-2018 or 2019 *Midwest Fruit Pest Management Guide for Commercial Growers* - Purdue Agriculture (free PDF download found here: <https://ag.purdue.edu/hla/hort/documents/id-465.pdf>)

- *Midwest Home Fruit Product Agriculture* (free PDF download found here:

https://ag.purdue.edu/hla/pubs/Midwest_Home_Fruit_Production_Guide_940.pdf)

-Territorial Seed Company Vegetable Seed Catalog (Order on-line) www.territorialseeds.com

-Other related reading material will be provided by the instructor throughout the course.

Lab Material Requirements

You may need to purchase these materials before the assignment of the lab. Listed below are the 3 course labs, the weeks they are assigned and the materials you will need to purchase. If there are any issues or are you are unable to perform the lab, you must contact the course instructor to make different arrangements at least 1 week before the lab is due. Since there is no cost for textbook purchase I believe these lab material costs are justified and reasonable.

Lab Assignment 1- Soil Testing for pH; Week 3 (There may be extensions to due date depending on soil temps)

- Soil probe or **gardening trowel (hand shovel)** to gather soil samples
 - If you are located on or near DCB campus you may be able to borrow a soil probe from the DCB Greenhouse. Contact Instructor. Supplies are limited*
- Plastic bucket for mixing soil samples
- **Roll of PH strips**
 - (These can be found at most hardware stores or purchased on Amazon. Here is a link to a product on amazon that would fulfil your needs.)
 - https://www.amazon.com/dp/B005FYGXUC/ref=cm_sw_em_r_mt_dp_U_KbsHCbVWYCMAR
- Distilled water or Rainwater

Lab Assignment 2-Value Added Product Recipe; Week 5

- Ingredient's for you recipe
- Production unit for recipe (i.e. Stove, hot plate, food dehydrator, etc...)
- Digital picture taking device (phone, camera)

Lab Assignment 3-Garden Design; Week 8

Course Requirements:

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 quiz, 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:

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

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

Week	Topics and Assignments Tentative Course Outline:
1 Introduction	Review: Course syllabus Watch: "Live recording of introduction to the class by instructor" (A scheduled time will be given to students to watch the introduction live and ask questions directly to the instructor) Read: NDSU Publication: Growing Great Vegetables in ND Watch: (Videos provided below) <ul style="list-style-type: none">• How to Design and build a Vegetable Garden• How to Grow Warm Season Vegetables• How to Grow Cool Season Vegetables Complete: Week 1 Discussion Forum "Introduce Yourself" (due Friday) (40 pts)
2 Keys to Successful Gardening	Read: Midwest Vegetable Production Guide for Commercial Growers P.gs12-49 Review: Keys to Successful Gardening PPT Complete: Week 2 Discussion Forum (due Friday) (40 pts) Complete: Week 2 Quiz (Due Sunday) (30 pts)
3 Vegetable Cultural ID	Read: <ul style="list-style-type: none">• Skyscraper farms are about to go global – Finance & Commerce• BBC - Future - How vertical farming reinvents agriculture Review: Vegetable Cultural ID Artichokes-Lettuce PPT Watch: Skyscraper Farms and Abandoned Warehouses video Complete: Week 1 Discussion Forum (due Friday) (40pts) Complete: <ul style="list-style-type: none">• Lab Assignment 1- Soil Testing for pH (You will need to have purchased pH strips as stated in course syllabus and the Live Instructor course introduction) (100pts)

Week	Topics and Assignments Tentative Course Outline:
4 Vegetable Cultural ID (continued)	Read: <ul style="list-style-type: none"> • Organic farming_ why we don't have more organic farms-National Geographic • Why Organic Food Might Be Worth the High Price _ Time • Agricultural Alternatives Organic Vegetable Production-Penn State Extension Review: Vegetable cultural ID Gourmet Greens – Tomatoes PPT Watch: NDSU Field to Fork - Spring 2018: Weed Management and Soil Fertility for Organic Vegetable Complete: Week 4 Discussion Forum (due Friday) (40pts) Complete: Week 4 Quiz (Due Sunday) (30pts)
5 Herbs Cultural ID	Read: NDUS From Garden to Table: Harvesting Herbs for Healthy Eating Review: Herbs PPT Watch: NDSU Field to Fork -Spring 2017 - "Herbs: From Growing to Packing" Complete: Week 5 Discussion Forum (due Thursday due to campus holiday) (40 pts) Complete: Lab Assignment 2- Value Added Recipe (You will have to purchase food ingredients for your value added recipe as stated in course syllabus and the Live Instructor course introduction) (100pts)
6 Fruits	Read: Midwest Home Fruit Product Agriculture Chapters 1,2, and 3 Review: <ul style="list-style-type: none"> • Fruit Production ppt • Cool fruits for cold climates video pdf Watch: NDSU Field to Fork 2019: Cold Fruits for Cold Climates Complete: Week 6 Discussion Forum (due Friday) (40pts) Complete: Week 6 Quiz (Due Sunday) (30 pts)
7 Value-Added Specialty Crop Products	Read: What is Value-Added Agriculture-PennState Extension Complete: Selling Home-processed, Home-canned and Home Baked Foods Using Specialty Crops- NDSU Mini Course Complete: NDSU Mini Course Assignment (30 pts) Watch: Field to Fork - Spring 2018: ' Developing and Selling Food Products That are Safe and Tasty" Video Review: Developing and Selling Food Products That are Safe and Tasty video pdf
8 Final Exam	Complete: Lab Assignment 3- Garden Design (100 pts) Final Exam Due!!!! (150 pts)

Relationship to Campus Theme: With the green movement to protect the environment and in today's economy; throughout the world, it is predicted that vast numbers of people will again grow a vegetable garden. Whether it is out of necessity or just to be guaranteed fresh and chemical free food, we need to understand ways to grow and market fresh produce. The new Buzz is to Buy Local/Buy Whole foods which should be a boon for the Farmers Markets.

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*.
- 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