

Dakota College at Bottineau Course Syllabus

Course Prefix/Number/Title: **PLSC 110 World Food Crops**

Number of credits: 3

Course Description: Scientific principles of crop growth, worldwide production, management alternatives, and processing for domestic and international consumption.

Pre-/Co-requisites: None

Course Objectives:

1. Summarize the history of agriculture and more specifically the study of the evolution of agricultural practices, various world food habits, and feeding the world.
 - a. Students will gain an understanding of its history and our current agricultural practices.
 - b. Students gain an understanding of the affects of human civilization, geographical, technological, and societal influence on present day food production.
2. Explain the well-defined system of crop classification, plant anatomy, plant physiology, and growth.
 - a. Students will demonstrate critical learning skills in plant classification.
 - b. Students will present and discuss plant anatomy and physiology.
3. Identify and evaluate food diets and fuel use in various parts of the world.
 - a. Students will identify macronutrients and micronutrients contained in different food sources and explain their importance as a dietary source.
 - b. Students will research energy opportunities from plants.
4. Explain factors affecting plants that are based on contributions from breeding, genetic modification, and agroecosystems.
 - a. Students will discuss ethics on cross breeding and genetically modified plants.
 - b. Students will gain knowledge of benefits and consequences derived from new crop varieties

Instructors: Linda Burbidge, PhD; Jerry Migler, PhD

Office & Info:

Dr. Burbidge: Molberg 20, Phone: 228-5442, Email:
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Dr. Migler: Dean's Office, Thatcher Hall, Phone: 228-5480, Email:
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Office Hours:

Dr. Burbidge: MW 1:00pm -3:30pm, TH 10:00am – 12:00pm, Or by appointment

Dr. Migler: T 9:30 – 10:30

Lecture/Lab Schedule: TH 8:00am-9:20am, Molberg 28 and IVN

Textbook(s): Sheaffer, C. C. and Moncada, K. M., 2012 *Introduction to Agronomy: Food, Crops, and Environment 2nd Ed.* Delmar, Cengage Learning, Clifton Park, NY.

Course Requirements:

Students' knowledge and understanding of the reading and supplemental materials will be assessed through exams, critical thinking assignments, and presentations. A final exam will be given at the end of the course. 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. The course consists of 470 points. There will be a one week grace period to make up any missed exam or assignment. Any missed exam or assignment not submitted in the allotted time will be given a zero.

Requirement	Points
Critical Thinking Assignments 4 @ 30 points each	120
Unit Exams 4 @ 50 points each	200
Final Exam	100
Total	420

Grading in this course will be a letter grade.

Letter Grade	Points (Percent)
A	376 – 420 (89.5% - 100%)
B	334 – 375 (79.5% - 89.5%)
C	292 – 333 (69.5% - 79.5%)
D	250 – 291 (59.5% - 69.5%)
F	<250 (<59.5%)

Tentative Course Outline:

Week of:	Chapter		Topics
Aug 26 - 30	1		Introductions/History of Agriculture
Sept 2 - 6	2		Agriculture Today
Sept 9 - 13	3	Critical Thinking Assignment #1 Due 9/12	Feeding the World
Sept 16 - 20		Exam #1 9/19	Review/Exam
Sept 23 - 27	4		Crop Classification
Sept 30 - Oct 4	7		Plant Anatomy and Morphology
Oct 7 - 11	8	Critical Thinking Assignment #2 Due 10/10	Plant Physiology and Growth
Oct 14 - 18		Exam #2 on 10/17	Review/Exam
Oct 21 - 25	5		Food and Energy from Plants
Oct 28 - Nov 1	6	Critical Thinking Assignment #3 Due 10/31	Chemistry of Food and Plants
Nov 4 - 8		Exam #3 on 11/7	Review/Exam
Nov 11 - 16	9		Improving Plants
Nov 18 - 22	10		Environment
Nov 25 - 29	13	Critical Thinking Assignment #4 Due 11/24	Cropping Systems
Dec 2 - 6		Exam #4 on 12/5	Review/Exam
Dec 9 - 13	18 (depending on time)		Organic Agriculture
Dec 16 - 20	Review		FINAL

General Education Goals/Objectives: None

Relationship to Campus Theme: This course is part of our Agricultural Management and Technology Program and it addresses the campus theme of Nature, Technology, and Beyond through learning about natural resources and how best to utilize each resource. The latest technology is discussed and demonstrated.

Classroom Policies: Be respectful of other students, instructors, and guests. Use of *cell phones* and other *electronic devices* is prohibited during exams and lectures unless otherwise noted by the instructors.

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 adhere to the highest level of academic integrity. Dishonesty and plagiarism with assignments, projects, or 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.

Disabilities and Special Needs: Any students with disabilities or other special needs, who need special accommodations in this course are invited to share these concerns or requests with the instructor and the Learning Center (701-228-5479) as soon as possible.