DAKOTA COLLEGE AT BOTTINEAU

COURSE SYLLABUS

Course Prefix/Number/Title: **PLSC 225 Principles of Crop Production**

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

Instructor: Raquel Dugan-Dibble

Office:
Moberg 21

Office Hours:
By appointment

Phone:
701-228-5481 extension 481

Email:

r.dugandibble@dakotacollege.edu

Lecture Schedule: TuTh 9:30 am – 11:00 AM, Moberg 28 and Teams

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. 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 640 points. Any missed assignment not submitted in the allotted time will be given a 20 Reduction of points per day past the due date. **Tests/quizzes must be completed by the due date, or a "0%" will be given. Arrangements must be made TWO DAYS prior to when the test/quiz is given in order to make up test/quiz beforehand. You will not be allowed to take the test after the due date – NO EXCEPTIONS.**

TEAMS EXPECTATIONS

- This course will be offered to students on different campuses via Microsoft Teams.

- **Students that take the course have the following expectations:**
  - To sign onto the Teams meetings at the regular class times
  - To always have their camera on
  - To have their microphone muted unless they are speaking
  - To actively participate in class discussion with the other students
  - To ask questions of the instructor as needed
  - To take the lab portion of the course in a hybrid/online format
  - **If students do not follow these requirements, their overall grade in the course will be affected negatively.**

Requirement	**Points**
Critical Thinking Assignments 5 @ 30 points each	150
Unit Exams 5 @ 50 points each	250
Labs @ 20 pts each	240
Total	**640**

Grading in this course will be a letter grade.

Letter Grade	Points (Percent)
A	573 – 640 (89.5% - 100%)
B	509 – 572 (79.5% - 89.4%)
C	445 – 508 (69.5% - 79.4%)
D	381 – 444 (59.5% - 69.4%)
F	<380 (<59.5%)

Week of:	Chapter		Topics	LAB Topics	Instructor
Jan 8 – Jan 12	4		Crop Classification	Agronomic Classification	R. Dibble
Jan 15 – Jan 19	7		Plant Anatomy and Morphology	Plant Anatomy	R.Dibble
Jan 22 – Jan 26	8		Plant Physiology and Growth	Plant Growth	R. Dibble
Jan 29 – Feb 2		**Exam #1**	Review/Exam		R. Dibble
Feb 5 – Feb 9	9		Improving Plants	Plant Genetics	R. Dibble
	10		Environment	Effects of Climate	R. Dibble
Feb 12 – Feb 16	11		Agroecosystems/Review	Ecology	R. Dibble
Feb 19 – Feb 23		**Exam #2**	Review/Exam		R. Dibble
Feb 26 – March 1	12		Soils	A Look at Soils	R. Dibble
Mar 4 – Mar 8	19		Grasses	Grasses and Pseudocereals	R. Dibble
Mar 11 – Mar 15		**Exam #3**	Review/Exam		R. Dibble
Mar 18 – Mar 22	20		Crop Profiles: Legumes	Pulse Crops	R. Dibble
Mar 25 – Mar 29	21		Other Crops/Review	Other Crops	R. Dibble
April 1 – April 5		**Review/Final**	**Final Exam**		R. Dibble

**********************This schedule is subject to change throughout the Semester****************

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. Understand global and social interdependencies as they relate to agriculture and food crops.
    b. Describe the important factors in plant health, growth, and nutrient density.
    c. Discuss benefit and consequences of the evolution of our food system from production to consumption.

Relationship to Campus Focus: 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 polite and respectful of the instructor, other students, and any guests in our class. We will follow any COVID-19 classroom policies currently in force by the University system. Ear buds are not allowed during class or lab. Cell phone use is only permitted for interactive lecture.

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.