

Teaching Plan for AGRO 483 (Sustainable Production of Agronomic Crops)

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Semester: Fall 2020

AGRO 483. Sustainable Production of Agronomic Crops. 4 Credits (3+2P) Characteristics and objectives of sustainable agricultural systems with application to the production, utilization, and improvement of cereal grain, fiber, forage and oilseed crops. Pre-requisite: Principles of Crop Production (AGRO 365) or consent of the instructor.

AGRO 483 is a four-credit course that meets twice per week for lecture (T/TH 1200-1315), and once per week for lab (TH 1500-1700). The lectures are scheduled to meet in Skeen Hall W130 and the labs are scheduled to meet in Skeen Hall W130. We typically have 10 to 15 students in the class. Daily attendance is recorded. I intend to teach the course with a similar content as in prior semesters, when both lectures and labs have been taught exclusively in a live, in-person setting that includes not only the Skeen classrooms mentioned previously, but also plant science center/campus greenhouse facilities and farm visits. In the Fall 2020 offering of AGRO 483, the following exceptions will be enforced to help mitigate COVID-19 transmission.

1. Lectures. Lecture activities and lecture exams will be planned for online dissemination using Zoom. Lectures will not be meeting in person in Skeen W130. The new online practice will eliminate student presence in the building and its vicinity during our lecture times. Following is my consideration for proposed changes to the online lectures in the event of change in the severity of health threats. **Scenario 1: There are no longer any significant health threats.** My lectures will be held online for the duration of the semester. If the health threats lessen, I do not propose changing from an online format to a physical presence format. **Scenario 2: Significant health threats have emerged during the semester and face-to-face instruction is no longer tenable.** Since I will be teaching the lectures online from the outset, no changes will be necessary to accommodate an increased health threat. **Scenario 3: My class has more than 50 students and health guidelines state that such large gatherings are prohibited.** As of May 11, a total of 9 students have registered for Fall 2020 AGRO 483, thus this scenario is not applicable.
2. Labs. Discrete instructions will be provided in the syllabus and practiced during the semester, as per CDC guidelines, to prevent COVID-19 transmission during lab meetings. We will not meet in person in Skeen W130. These instructions will include 1) self-monitoring using guidelines from the Aggie Health and Wellness Center; 2) 'remaining at home if ill' policy; 3) wearing an approved facemask when on campus if such a directive remains in effect; 4) maintaining six feet social distancing as work duties permit; 5) cleaning and disinfecting countertops, common areas, and shared equipment during and after use; and 6) and practicing frequent hand washing.

Online labs. To reduce the density of student lab gatherings, enhance social distancing, and minimize face-to-face contact, I will deploy several measures. Firstly, I will change in-person lab meetings to online virtual (Zoom) lab meetings for 9 of the 15 semester lab topics (60% of total meetings) devoted to field trips, guest lectures, panel discussion, and self-guided computer assignments each with their own tutorial. To address the different health threat scenarios for these online labs, see part 1 above.

Physical presence labs. For the remaining six semester lab meetings, I will employ two measures depending on lab topic, in order to effectively reduce student density of this relatively small class by 50%, thereby having only 8 or fewer students at a time during one session.

The first measure will be to stagger the 2-h instructional laboratory sessions at the Skeen greenhouse or other campus sites to accommodate one-half of the students from 3:00 to 4:00 pm, and the other half from 4:00 to 5:00 pm. With this measure, I expect no more than 8 students per session at the Skeen greenhouse or other area where maintaining a minimum of six feet social distancing will be feasible. There is possibility that Fabian Garcia Agricultural Science Center/Student Research Education Garden will also be used for laboratory activities, and reserved for one to two groups consisting of three to four students, each of whom will (individually) water plants throughout the semester.

The second measure will be to provide students seed, pots and potting soil to grow plants at home and manage them and water during the semester based on a design planned through class discussion. The students will record observations, take pictures and videos during the growing season. The students will present their observations through Zoom and submit reports at the end of the semester.

If training is provided by department, the instructors will incorporate a combination of live streaming and recorded videos so, ultimately, each student will be fully engaged with the lab activities in their entirety.

Following is my consideration for proposed changes to the physical presence labs in the event of change in the severity of health threats. **Scenario 1: There are no longer any significant health threats.** In this scenario, there are no proposed changes to the physical presence labs. **Scenario 2: Significant health threats have emerged during the semester and face-to-face instruction is no longer tenable.** The six lab sessions in question will be used include filling pots, planting and inspecting the crops, collecting data at student home site. These labs will be converted to online Zoom meetings using a combination of PowerPoint presentations and student videos, and demonstrations. Thus, there is a high probability that online delivery of AGRO483 lab-intensive meetings will satisfy the same objectives as what in-person delivery does. Alternatively, a part of the credit for lab-activity will be converted to additional online projects. **Scenario 3: My class has more than 50 students and health guidelines state that such large gatherings are prohibited.** Not Applicable-See part 1.

3. Contact tracing. A student will immediately notify me and the aggie health center by email or telephone if they suspect they are ill (body temperature in excess of 100.4F, cough, or shortness of breath), or if they are notified that they may have potentially been exposed to COVID-19. Once I discover via email that a student may have a virus or has been tested as presumptively positive, I will work with the student promptly via email or telephone to i) assert that they are isolated and do not transmit further, ii) ask them who they have come in contact with for up to 14 days before they experienced symptoms, and iii) attempt to secure the name(s) and contact information for the human contact(s) in question. I will maintain email and telephone records of affected students and their contacts. The names and contact information (telephone and email) of the affected student and their recent contact(s) will be reported to my Department Head, Dr. Rolston St. Hilaire. The affected student will be instructed to call their physician, the New Mexico Department of Health COVID Hotline, or the Aggie Health and Wellness Center to arrange for a test, if the student has not already done so. In extreme cases, they will be instructed to call 911. The affected student will return to class only if they have been tested, and only after a negative test. If the test is positive, I will notify Dr. Rolston St. Hilaire, and the student will self-quarantine for 14 days.